

GHOST IN THE SHELL
MAN-MACHINE INTERFACE

攻殻機動隊

ISSUE 6 OF 11

STORY AND ART BY

MASAMUNE SHIROW

TRANSLATION BY

FREDERIK L. SCHODT AND TOREN SMITH

この物語に登場する
様々な設定や解説や
念は全て妄想の産物で
あり、現実とは無関係
の娯楽物です。服用を
読む事無くお楽しみ頂
ければ幸いです。

またデッчи上げやギミ
ックの「誤用」による
二次被害には当方責任
を負いかねます点を御
了承願います。

LETTERING BY

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AND DAN JACKSON

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OPEN

MAN-MACHINE INTERFACE CONTROL PREFERENCES



WARNING: READ ME FIRST!

Readers may note that certain panels seem to have been inadvertently left unreversed or have incongruous backwards lettering. These were artistic decisions made by Mr. Shirow during the production of the mirror-imaged foreign edition of *Man-Machine Interface*. — Dark Horse Comics and Studio Proteus

The various situations, explanations, and concepts that appear in this book are a product of my wild imagination, a form of entertainment with no connection to reality. Take according to directions, and enjoy. Be advised that the author assumes no responsibility for any collateral damage resulting from improper use of the various constructs, fabrications, and gimmicks in the story.

APOLOGIES AND CORRECTIONS

In the *Ghost in the Shell* graphic novel published in 1991, the heroine, Motoko Kusanagi, fused with a self-described "intelligent life-form" and left Section 9 of the Public Security Bureau. This story takes place approximately four years and five months later. As a result, this story is quite different from what was originally called *Ghost in the Shell* and featured Public Security's Section 9 (the Special Assault Force). I thought of visually differentiating the new Japanese title from the old one by merely changing the last kanji character, from one that means "military unit" to the homophonic kanji for "body" or "form" (which would shift the meaning of "mobile force" or "riot squad" to something like "mobile-unit-body-entity"), but for a variety of reasons I decided not to do so. To those readers expecting a direct continuation of the prior storyline, I apologize and beg for your understanding. I'm sorry, folks!

— Masamune Shirow

Send comments to:

Interface
10956 SE Main Street
Milwaukie OR 97222 USA

interface@darkhorse.com

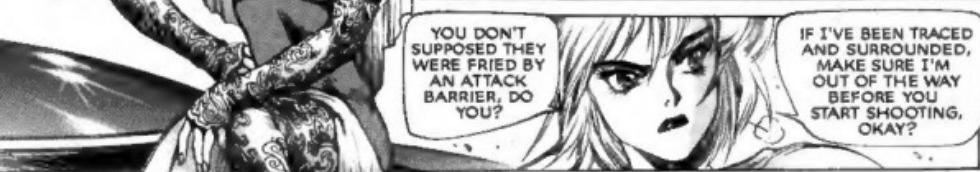


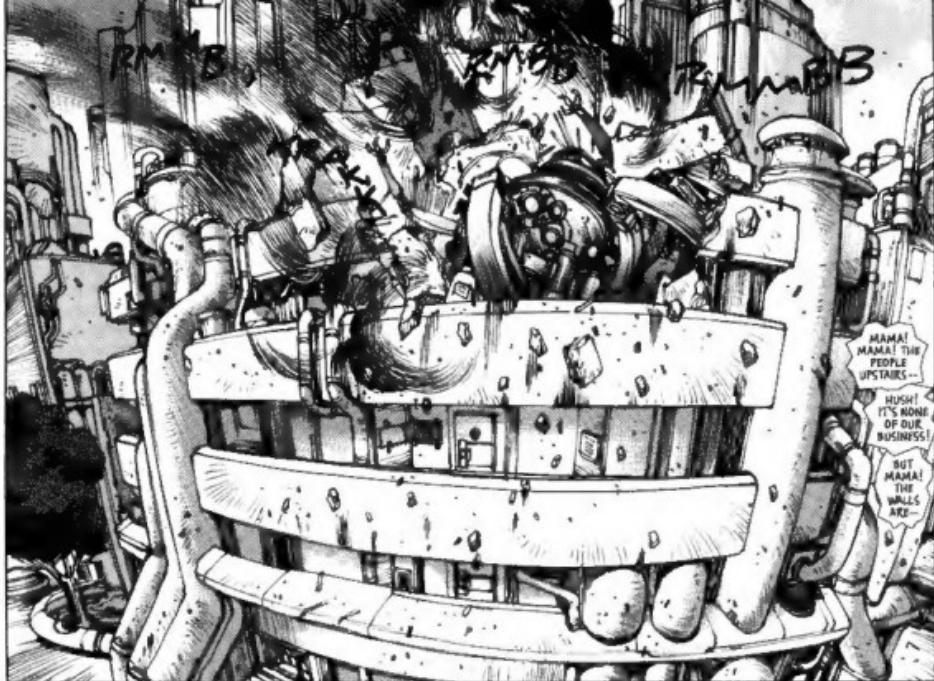
Motoko has apparently been processing the signals coming from her leg and deceiving her own senses to think that her right leg is really a cylinder. By doing so, in cyberspace her leg has the sensation (visual and tactile) that it is a leg, but in reality, as shown in the above panel, it's of course just functioning as a leg, and is perceived as such. This gives her a quick way to tell if she is in fact in "reality" and not simply another iteration of cyberspace. (Doesn't sound very believable, does it...?)

E-brain humans normally wake up sooner than cyborgs because their bodies make more independent demands on them (hunger, the desire to eliminate, sleep, or roll over at night due to poor circulation). Of course, these demands are usually repressed using medication, but not indefinitely. Most people have experienced this, even if they don't have e-brains. Even when we're completely engrossed in video games, books, talking or creating something, sleep or hunger or poor circulation have the ability to interrupt what we're doing. At least for me. And you...?













THEY'RE THE BOUNCERS FROM A LOCAL DANCE CLUB. I'M PUTTING TOGETHER AN INFECTED ROUTE FOR YOU...

INJECT THE SAME VIRAL ARRAY AS LAST TIME! ANALYZE CHANGES IN THE ENEMY'S RESPONSE AND GIVE ME A REPORT!

THE LOCAL POLICE SWAT SQUAD HAS BEEN MOBILIZED.

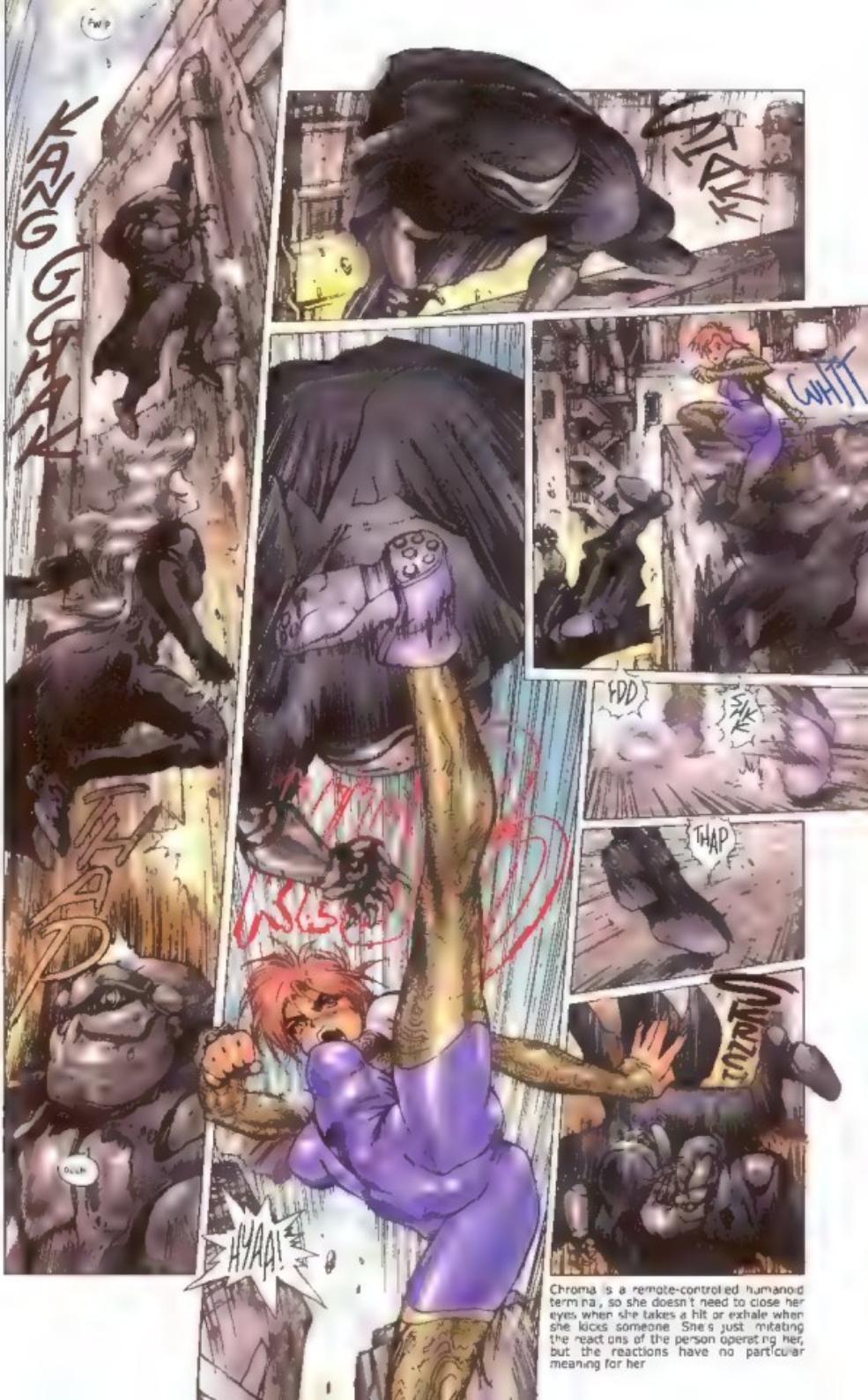
DO A TRACE ON THE ROUTE AND MONITOR IT. IT'S TOO SOON! OUR OPPONENTS SHOULDN'T HAVE GONE NUTS OVER SOMETHING LIKE THIS...











Chroma is a remote-controlled humanoid term na, so she doesn't need to close her eyes when she takes a hit or exhale when she kicks someone. She's just imitating the reactions of the person operating her, but the reactions have no particular meaning for her.







ZMPH! GETTING CAUGHT BY THE SAME TRICK TWICE DOESN'T SAY MUCH ABOUT HER COMBAT SKILLS.

SHE'S JUST A HOST, SO MAYBE THAT'S AS GOOD AS SHE COULD DO... TOO BAD, BUT THAT'S THE BREAKS.

I SHOULD HAVE CAUGHT ONE AND DONE A REVERSE TRACE



SHE WAS USING THE SAME COMMERCIAL COMBAT SOFTWARE I AM, BUT UNMODIFIED. GOOD THING I'VE GOT A REINFORCED FRAME...

SENDING FOUR DIFFERENT TYPES OF HOST BODIES MEANS THEY'VE GOT A PROBLEM WITH THEIR INTELLIGENCE GATHERING



LOOKS LIKE THE TWO HEAVYWEIGHT BODIES AREN'T GOING TO BE ABLE TO COME AFTER ME. BUT... WAIT A SEC... IF THEIR GOAL WAS TO ELIMINATE ME, THEN THEY SHOULD'VE GRABBED SOME FIREARMS FROM ALGREN'S MEN!

SO THE GOAL MUST BE TO TAIL ME... BUT THEN WHY ATTACK ME THE WAY THEY DID? CAPTURE? VERY STRANGE...

GEE, JUST WHEN I WAS GETTING USED TO THIS BODY...

TOO BAD, BUT I GUESS I'LL HAVE TO PUT IT TO SLEEP.



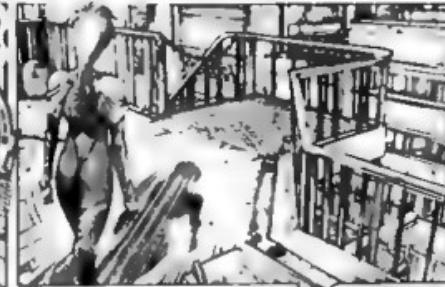
Commercial combat software: A type of program that automatically takes care of combat, in accordance with the body's previously set structural strengths and powers.



SET THE MINE
RELEASE AND
MAG-KILL TO
TRIGGER EITHER
TWELVE HOURS
FROM NOW OR
WHEN AN
UNCODED
EXTERNAL
CONNECTION
TAKES PLACE

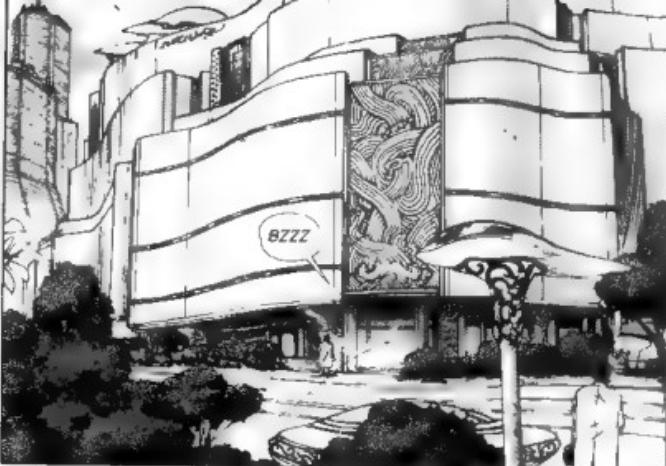


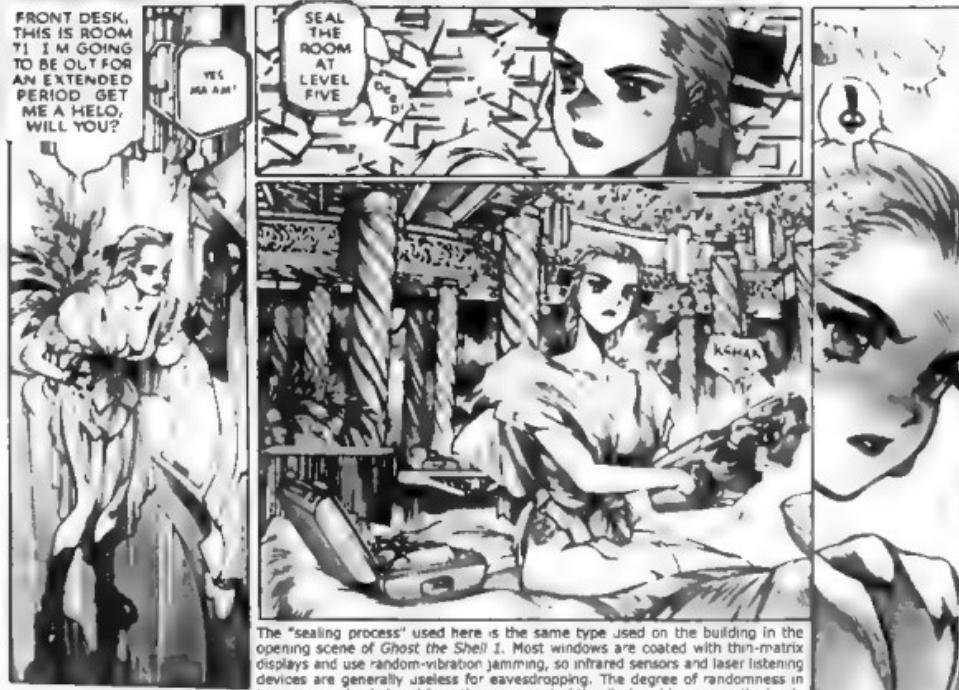
AFTER HIBER
NATION YES
HOO RAY!



Since it's just to gain time, anywhere would do fine. Marlo has a stock of cans available and rooms she periodically secures in hotels. This will allow her to activate Chroma around eight hours later as a decoy.

Passing through greenery is a good way
to throw larger pursuers off track. The
heavier the growth, the easier it is to
lose them, but you have to move fast.





The "sealing process" used here is the same type used on the building in the opening scene of *Ghost in the Shell 1*. Most windows are coated with thin-matrix displays and use random-vibration jamming, so infrared sensors and laser listening devices are generally useless for eavesdropping. The degree of randomness in jamming can be deduced from the movement of the displayed images on the inside of the glass (reflections of trees moving in the wind, and of water, are common). These windows can also function as antennae, so one has to be very careful!



WELL, INSTEAD OF
SENDING AN IMAGE
TO YOUR E-BRAIN
THE USUAL WAY YOU'LL
PROBABLY BE SEEING
ME IN THE FORM WITH
WHICH YOU WERE
MOST LINKED IN
YOUR FORMER
LIFE

SOMETIMES
I APPEAR AS
A BLOODY
FALLEN
WARRIOR,
AND PEOPLE
MISTAKE ME
FOR A
GHOST...

GEE, I
WONDER WHY
THAT MIGHT
BE? DON'T TRY
TO PROSELYTIZE
OKAY? I'VE
HAD ENOUGH
OF THAT FROM
YOU PEOPLE

SO WHAT
DOES THE
CHANNELING
AGENCY
HAVE TO SAY
TO A MERE
CIVILIAN?



Channeling Agency: A secret organ of the State normally it helps suppress the scene of earthquakes and other disasters with feng shui, etc., or it is employed to psychologically back up meetings with foreign VIPs. Among those who know of its existence, it's regarded as a very questionable agency.





YOU REALLY THINK IT'S FUN FOR ALL THE SPECTATORS TO DO AN E-BRAIN TRANSFER INTO THE HERO-PROGRAMS IN THE SOFTWARE STORYLINE AND ALL SHARE THE SAME EXPERIENCE?

TOO
SOCIALIST
FOR ME,
THANKS.

BUT THEY'RE ALL
FUSING BY CONSENT
AND... IF I TOLD YOU THE
STABAT MATER STAFF HAD
HIJACKED THE FOUR
PEOPLE YOU MET EARLIER
WOULD YOU BE MORE
INTERESTED?

NOT
REALLY

NOW IT'S YOUR
TURN TO CHAT
WHAT WERE
YOU DOING
THERE
ANYWAY?



WHO SAID WE
WERE GOING
TO EXCHANGE
INFORMATION

**IF YOU REFUSE
I WON'T HELP
YOU! AND
YOU'LL NEED**

Hein Hein reh

IF YOU'RE
TALKING
ABOUT THE
"DEAD LITTLE
PIGS" STORY,
THEN I DON'T
MIND

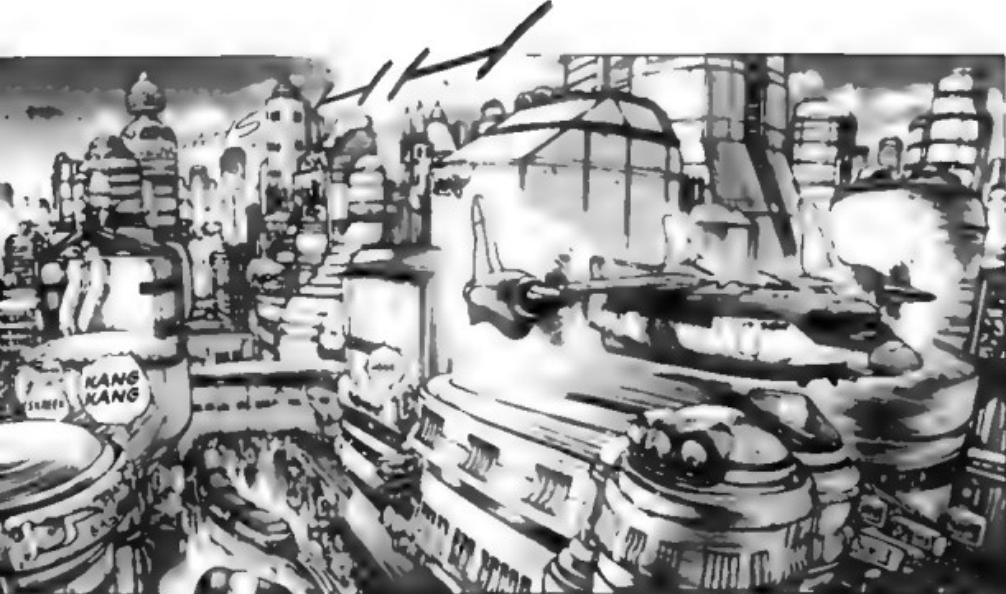
NOW, THAT'S
NOT THE SORT
OF CASE THE
CHANNELING
AGENCY WOULD
SEND ME
FOR!



Let's assume that Motoko and Tamaki's conversation is actually all mental and therefore inaudible



The aircraft shown here is not actually a helicopter, but a tilt-rotor. In our story it's used for business and public service missions much more commonly than light aircraft or helicopters. At least that's the idea



YOU VE GOT
DECOTS AND CARS /
AND WEAPONS
STASHED ALL
OVER THE WORLD
FOR YOUR USE
DON T YOU

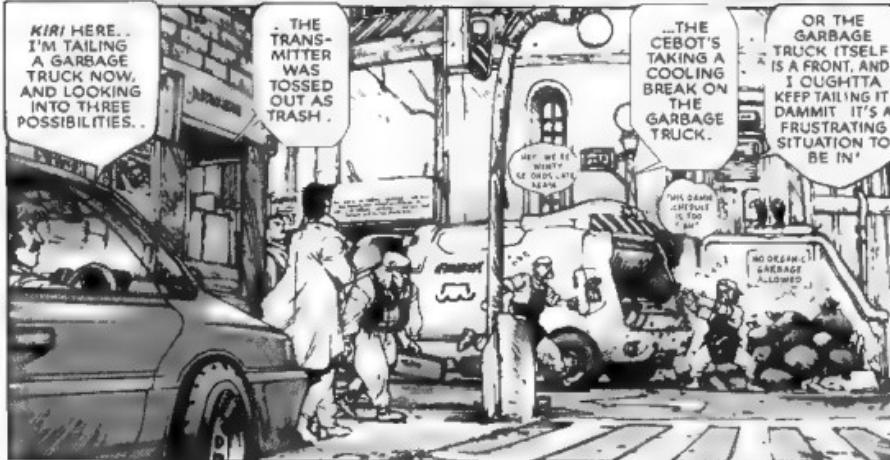
YES, AND
IF YOU TELL
ANYONE ILL
WIPE OUT
THE ENTIRE
CHANNELING
AGENCY.



In reality the laser combat light wouldn't be visible unless there was a lot of smoke or dust in the room [The Enforcer] revolves along with the viewer system!]



FRACTO TO KIRI... AN OSPREY JUST TOOK OFF FROM THE BUILDING VISITED BY THE BEE-TYPE CEBOT, AND IT'S NOW PASSING OVERHEAD. IT'S A WEIRD ONE THAT DOESN'T REGISTER ON SATELLITE, BUT THERE ARE NINE MACHINES THAT WOULD APPLY AT CONTROL.



A cebot is a "centimeter class" robot. It's usually anything from one to ten centimeters. As in the case of Motoko's bumblebee, many cebots are built to look like insects. Cebots are used to eliminate insect pests or clean sewers and usually operate in swarms (aka "insectrons"). Cebots are a product of nanotechnology, but they're too big to be referred to as nanomachines or micromachines.

In the second panel on the preceding page, they wait nine minutes at the airport before heading to another destination because they want to throw off anyone trying to monitor, pursue, or tail them. Unless, of course, they can be directly detected via satellite or radar. I can be hard to distinguish from a distance, as many small aircraft use the airport. Obviously, they're not going to fly directly to the airport, either they'll go in a round-about way to throw any pursuers off track.

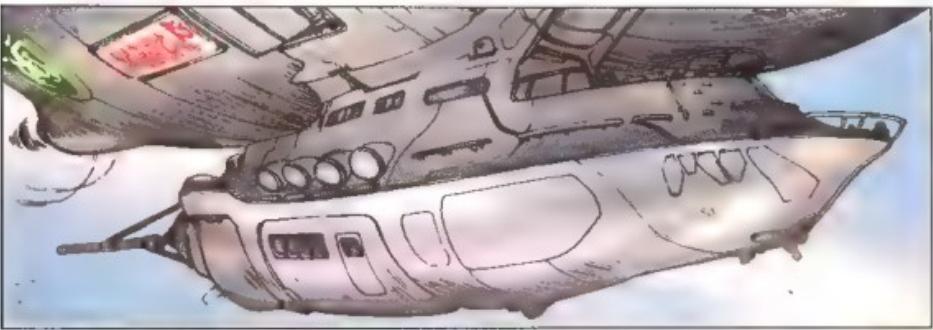
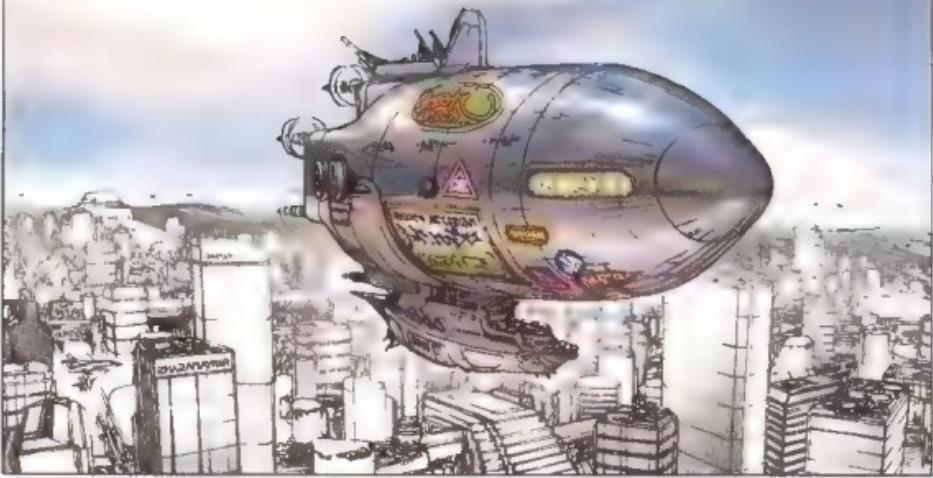
WELL, I JUST GOT A READOUT FROM THE SANITATION DEPARTMENT-- BOTH TRUCK AND WORKERS ARE APPARENTLY THE REAL THING.

USE THE SANITATION DEPARTMENT'S LINES TO TELL THE MEN TO FINISH COLLECTING GARBAGE AND TO HEAD FOR THE INCINERATOR PLANT, THEN LET'S SEE WHAT HAPPENS TO THE TRANSMITTER SIGNAL

OKAY. CHROMA GAVE THE "THING" TO THE DETECTIVE, ANYWAY, SO I'LL LEAVE THE REST OF THE TAILING UP TO YAMAZO.

I'LL DIS-ENGAGE HERE AND GO REPORT TO MOTHER...





...BUT I'M MORE
CONCERNED
THAT WE DON'T
KNOW WHICH
"LAMB" THE
ENEMY TOOK
THAT "THING"
FROM. BETTER
UPDATE ALL
OUR WARNING
MINES...

IF WE
ACCESS
MOTHER
THE
WRONG
WAY,
THEY'LL DO
A REVERSE
PROBE ON
US.





TO BE CONTINUED...

INTERFACE

Send email comments to interface@darkhorse.com

Send snailmail comments to:

interface
c/o Dark Horse Comics
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Milwaukie OR 97222

Hey, we finally have a forum up and some of you have come into play. There's also been some lively discussion over on the darkhorse.com message boards, and I highly recommend any and all of you get your feet wet in those forums. If you haven't already, I've even found them to be there from time to time. Hardly a feature, but...

-Chris Warner

Dear Masamune Shirow,

Just got finished with a vacation in which I went to Hong Kong, Thailand, and Burma. The memories of this vacation were para-sailing, riding in various boats along the River Kwai, and Coral Island. Train ride through cliffs of River Kwai and actually seeing the Bridge over the River Kwai. What also made this vacation incredible was getting back into my hotel room and discovering some of the excellent anime cartoons that Bangkok has to offer. But nothing compares to *Ghost in the Shell*. This is manga done with excellence! I was in my own "shock and awe" when looking upon Masamune Shirow's incredible and very realistic artwork. The clone organ farm with the slaughtered pigs was absolutely horrific. Using pigs to harvest human organs is ghastly, but I remember what I once saw on the news, a rat that had a human ear growing out of its torso. It's disgusting, but this is where we are headed. What an imagination Mr. Shirow has in this futuristic sci-fi story. Imagine a city called Pegasus that is a floating city in the Indian Ocean. The airships and mechanical drawings are done with such precision...all I could do was applaud. Not to mention the elaborate costume designs and the originality of each costume. There is plenty of sci-fi intrigue that gets the reader curious, especially when it is described in analyzing brain activity, that there are drugs all over the place, and the link to E-brain activity can't be found. I love the footnotes that detail more insight into the story. Clones, cyborgs, and robotics...it's all here in *Man-Machine Interface!* Standing ovation to Masamune Shirow!

Paul Dale Roberts,
Knight of Jazma Jazma Universe Online!

"Shock and awe" is about the most accurate assessment I've seen to date to describe the typical first-time viewing of MML. And second-time. And third-time. I still shake my head in wonder every time I crack the cover.

What can I say, awesome, unparalleled, über-terrific! The wait was worth it! *Dark Angel* and *The Matrix*...heh! These jokers can't even begin to compare with Shirow's sophisticated and mindboggling storyline and high-tech artistic pencils (does he still use them?). Anyway, enough of the accolades...I have a question to ask, two for that matter. In *Intron Depot 2*, Mr. Shirow mentions the existence of *EXTRON Depot*. When is it coming? Will Dark Horse publish it? What about *Demon Hunter*? Was it ever published? Will Dark Horse publish it too? I hope you or the über-meister HIMSELF can respond to my questions. Thanks a lot and more POWER!!

Steve Veloso

*Well, Mr. Shirow is pretty busy, even by über-meister standards, so I wouldn't hold my breath waiting for a personal reply. That said, *Extron Depot* is still a work in process, and it will likely be some time before it sees print. *Demon Hunter* – a prose fiction series for which Mr. Shirow provided a handful of illustrations – has never been published in the States. Dark Horse would love to publish anything Shirow, of course, and we plan to publish more, but *Extron Depot* is a*

Any way off and down there, as a series of novels, isn't exactly the kind of thing we typically publish. Anything's possible, but anything I say would be pure speculation, so I'll just shut the hell up.

After reading and enjoying the visuals of the 2nd issue of Shirow's latest, *GITS2: MM*, and reading the notes in the back, I'm finally ready to voice my thoughts on what has been eating at my brain about Shirow's work and the "need to Westernize."

Why is it that Dark Horse is probably at the moment the only mainstream-manga publishing company remaining stubborn and absolutely demanding to print unflipped-image manga? Isn't it enough Shirow slaved over this incredible work that is *Man-Machine Interface* that all it needed was to be translated and carefully presented in an unflipped English edition? Shirow obviously poured his heart and soul into the images presented in all his works, even more so in *Man-Machine Interface*. This is obviously a light year ahead of anything else I've seen from the artist. This might raise the bar of what is considered manga to a higher level at least for manga of this genre. But what really annoys me is that Dark Horse absolutely insists to ask Shirow to go back into what he already did with his work and censor it with his hands and further after it, just so it could be published... and it cost us the original "manga" for an English edition.

Why is this even necessary? No manga-reading audience has come far in the past ten or so years, and more companies are bringing to light wonderfully done unflipped editions. Lots of fans have been asking for this, and companies are delivering, and often with prices reflecting the increasing acceptance of manga as a viable market; while all that's necessary is to translate the material without flipping or other major mutilations.

And another issue I have is with Dark Horse's censorship of some pages in an issue of the original *GITS* manga by Shirow. Fans found out pretty quickly that a cyber lesbian sex scene was completely chopped out, one panel having been re-drawn by Shirow (presumably), just so there'd be something instead of half of a blank page. I was sent color copies of those pages soon after that issue came out, and a friend sent me a text file from an English translation done somewhere in Europe (not sure which country it was published, unedited and unflipped, but such an edition was published). Granted, there was probably a need by Dark Horse at the time *GITS* came out to make that eight-issue manga series appeal to a mass market without raising the ire of some people, that being a small-minded and ignorant minority who don't buy manga nor can appreciate the reason why anyone would buy it. But since it happened once in the original *GITS* by Shirow, I am very concerned this same censorship, removal of material, and changes to images will happen with *GITS2* because of the same issues for requesting the changes and censorship.

Manga doesn't need to be "Westernized" any more than being translated. And I am sure I'm not the only one offended that the only way to see *GITS2: MM* unedited, unflipped, and uncensored is to buy an original Japanese edition. Just for once I wish Dark Horse would take the leap and join the rest of the manga publishing community and do an unflipped edition. *GITS2: MM* could have been such a centerpiece for such an entry. Working with the images unflipped would have saved lots of man hours, both for Shirow-sensei and the people who have to put the translations on the pages in the proper places. I appreciate the fact that Shirow had a heavy hand in how *MM* was prepared for an English edition so it's pretty much how he wanted it to look because of the fact that Dark Horse wouldn't publish it unflipped (and uncensored), but sadly I feel this was work he never needed to do in the first place. This is not to say I won't order and collect the rest of the series. But I would look forward to an unflipped edition in English, perhaps as a \$15 graphic novel... just so you know.

Andrew Lloyd

*First of all, you're laboring under two massive misconceptions. Dark Horse neither censored Mr. Shirow nor forced him to Westernize *Man-Machine Interface*. Had Mr. Shirow asked that the "hot" pages be left in and that the book be printed in its original orientation, we would have done so. In fact, we'll be publishing *Berserk* later this year non-Westernized at the creator's request. Mr. Shirow himself decided to pull the controversial pages — they aren't included in the Japanese collection either — possibly because the book would have had to be sold as an Adults Only title in the States and likely wouldn't have been allowed into a number of countries. Shirow wants to get his work to his readers, and omitting a small number of pages hardly seems like a huge sacrifice to achieve that end, particularly when balanced by the inclusion of over 150 pages of new material.*

All that said, let's get down to one of my "favorite" subjects: to Westernize or not to Westernize. First off, I'll lay this down right away: there's nothing "authentic" about right-to-left oriented manga translated for a Western audience, any more than little white words printed across a screen (subtitles) are "authentic." The only authentic way to read manga is to read it in Japanese with a much stronger cultural background than even fluent Westerners will ever experience. Publishing is about getting stories into the hands of readers. Just as some viewers of foreign films prefer dubbed films over subtitled, some readers prefer Westernized manga because it does not interfere with the natural reading and visual flow of comics, as opposed to the counter-intuitive chore of having a book visually oriented right-to-left, while still having to read left-to-right. To be frank, if you want a more authentic experience, the English words should be stacked vertically and aligned in rows that read right-to-left, but my guess is that would be too ridiculous and annoying for even the most hardcore purists. And what's authentic about not translating sound effects? Sound effects are just another way of telling information, not just fancy graphical flourishes. Does the intent of the story change when the sound effects are removed? I doubt it. So, to sum up, experience? In a word, no.

Like it or not, the readership of manga is growing, and that means that there are those who just like cool comics regardless of national origin, and there are those who the industry needs to expand its base and create a future where graphic fiction becomes an accepted and vital art form in America. So, while you might prefer the non-Westernized manga – no crime, certainly – apparently its Westernizing doesn't sufficiently degrade your reading experience enough to completely turn you off. Let me also remind readers that until some publishers began to market non-Westernized manga as some sort of superior, desirable form, westernizing manga was not an issue. In other words, no one cared until someone started promoting the idea that something was wrong. Ultimately, only the original Japanese editions are authentic, and the merits of Westernized or non-Westernized manga boil down to the purely subjective realm of personal taste. Your mileage may differ. End of rant.

Dear Mr. Warner, Mr. Smith, and/or Mr. Dreyer:

I just spotted the first issue of *Ghost in the Shell: Man-Machine Interface* and picked it up, having heard interesting things about it. I must say I wasn't disappointed; I plan to pick up the next issue when I go back next. I particularly like the sophisticated treatment of future technology and the clever nuances that convey it in the story.

However, I wanted to note one small technical inaccuracy. Issue 1 refers to "Nisan knots per hour" at the top of the eighth interior page and at the top of the 28th interior page. A check of Webster's Collegiate confirms that the primary meaning of "knot" is "nautical mile per hour," which is already a measure of speed; so saying "knots per hour" is the same as saying "nautical miles per hour per hour," which is unnecessarily repetitive and confusing. I note that several other places give speed in just "knots," among them Motoko's dialogue in the bottom middle panel of the 18th page and the displayed vessel statistics in the middle panel of the 29th page.

This isn't a big deal and certainly doesn't prevent me from enjoying the story. But noticing it is a slight distraction. So I'm writing to tell you about it in the hope of exercising it. Perhaps you and/or the translators can watch for that one in issues not yet at the printer.

Best wishes, and thanks for your attention.

William H. Stoddard

Hey, you win the "catch of the day"! How'd we let that slip through? I'm not saying that I actually sleep on the job, mind you, but there's nothing wrong with working in pajamas while laying down, in my opinion. When my eyes are closed, I'm concentrating really hard! Otherwise, the heavy drinking has never really affected my work, and many actually consider extensive on-the-job Playstation use as an aid to staying alert, focused, and tuned in to current trends. At least it works for me.



GHOST IN THE SHELL

MAN-MACHINE INTERFACE

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ISSUE 6 OF 11



DIRECT SALES

MASAMUNE SHIRAYAMA

GHOST IN THE SHELL
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ISSUE 3 OF 14

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WARNING: READ ME FIRST!

It's been a long time since I last wrote to you. I've been busy with my new job at the library, and I've been trying to get used to my new life here in New York City. It's been a bit of a challenge, but I'm getting used to it.



I wanted to let you know that I'm still writing my book, and I'm making progress. I'm trying to write every day, even if it's just a few pages. I'm also trying to keep up with my reading, so I can learn more about the world around me.

APOLOGIES AND CORRECTIONS

I'm sorry for any mistakes I may have made in my previous letter. I was trying to write quickly, and I didn't proofread it very well. I apologize for any confusion or inconvenience this may have caused. I promise to do better next time. I hope you'll forgive me, folks!

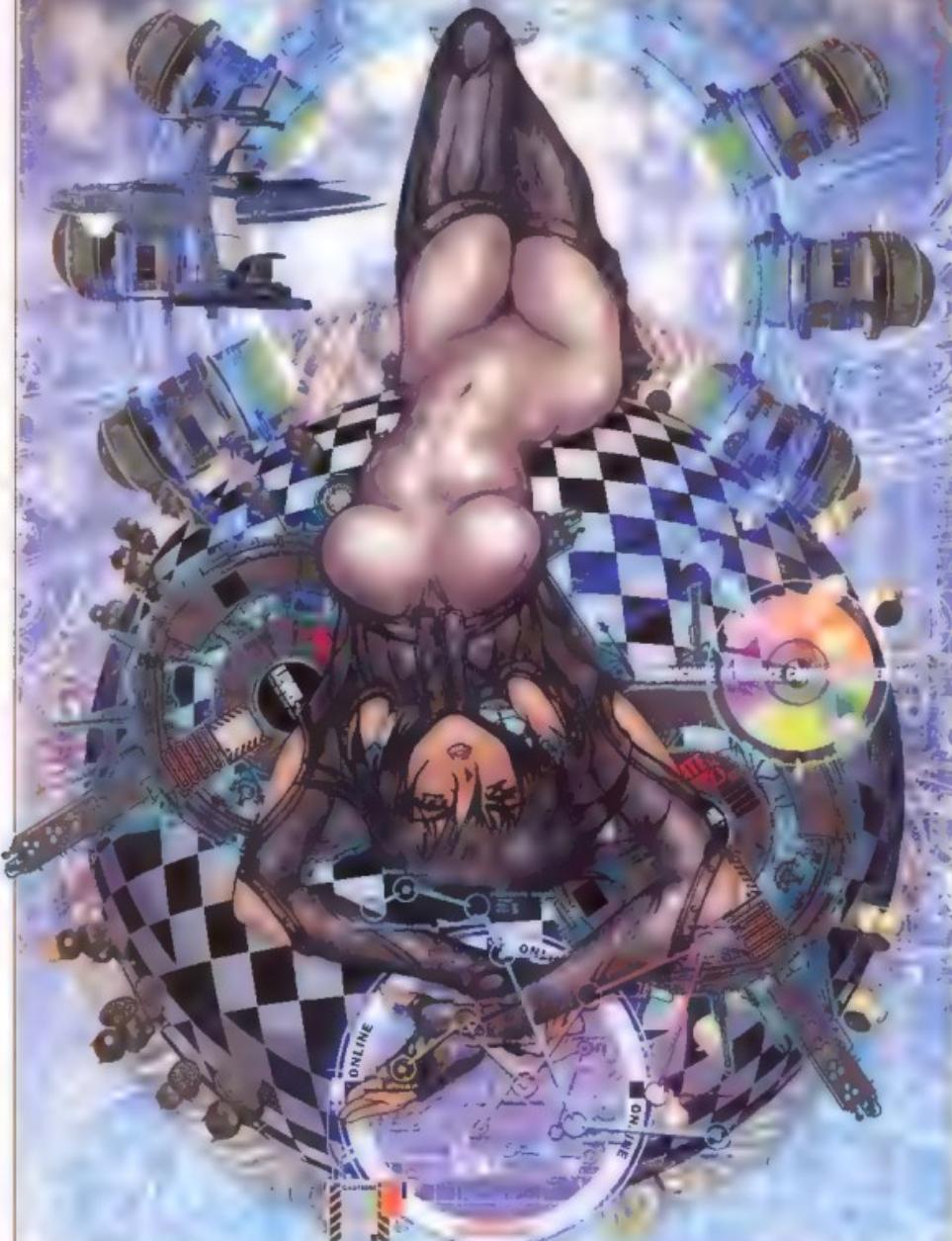
sincerely,
Samune Shirow

PS: I'm still looking for a good book to read. Any recommendations?

PPS: I'm still looking for a good book to read. Any recommendations?

PPPS: I'm still looking for a good book to read. Any recommendations?

OFFLINE
05



2035.03.06.PM01.54



WE'VE CONFIRMED
TAMAKI TAMAI
IS OPERATIVE,
BUT DON'T
KNOW THE
DETAILS...

OH?

I'M GETTING THE
IMPRESSION WE'RE
DEALING WITH
SOMETHING VERY
DIFFERENT FROM
THE "ULTRA"
STRAIGHT
TAMAKI I KNOW...

WE'RE CERTAIN
THERE HASN'T
BEEN AN
INFILTRATION.
BUT WE'RE
RECHECKING THE BARRIERS

I WONDER IF
THE ORDER SENT
EARLIER TO THE
CHIEF EELING
AGENCY OF
ORDERING THE
AGENCY HEAD TO
THE COAST DIDN'T WORK...?



DECATONCALE: Name of a special supercomputer in this story. Only three such systems exist on the planet.
ARACNOSAT: Name of an optical satellite network system. Uses redundant communications lines to ensure throughput.



OKAY... I
CHECKED WITH
HR. CASH
FLOW IS CLEAN,
NO SIGN OF
NEPOTISM OR
NOTHIN'

THE DEPARTMENT
CHIEF AND FELLA IN
CHARGE SECRETLY
INVESTIGATED HER.
THE OLD EXAMINERS
OFFICE COLLECTED
ALL THE RELEVANT
DOCUMENTS...
NOTHIN' SPECIAL.

WELL, SHE MUST
HAVE SOME SORT
OF EXCEPTIONAL
CONNECTIONS,
REGARDLESS. I
WONDER WHAT
KIND OF WORK
SHE NORMALLY
DOES...?

AT ANY RATE, KEEP
GATHERING INFO ON
HER. THERE MAY BE
SOME DISPUTE GOING
ON ABOVE OUR
HEADS, SO I WANT
YOU TO REPORT TO ME
DIRECTLY, WITH AN
INDEPENDENT TEAM.

SHE'S STARTED
INPUTTING!
I CAN'T TELL
WHAT SHE'S SAYING
'CAUSE I CAN'T
CRACK THE FILES
WITH THE TOOLS
I'VE GOT.

AND SHE'S
CYCLING THROUGH
DIFFERENT RELAYS
AT AN INCREDIBLE
SPEED

AT LEAST TRY
TO FIGURE OUT--
OR GUESS--
WHO SHE'S
CONNECTING
TO.

HABU! I NEED
TO KNOW HOW
MANY SENIOR
RESEARCHERS IN
CHARGE OF THE
DECATONCALE
ARE OFF-SITE
NOW.

MNF? WELL, IT'S
LUNCHTIME NOW,
SO PROBABLY ABOUT
A THIRD. IF YOU
WAIT A SEC, I'LL
CHECK...

OKAY...
TWENTY-
EIGHT.
WHASSUP?

IT MAY BE A FEINT BY
E-THUGS SO DEPARTMENT
HEAD ARAMAKI CAN
CONNECT TO THE
DECATONCALE. MAKE
SURE TWO OUT OF THREE
OF THE DEDICATED
SECURITY TEAMS ARE
STAFFED WITH NON-E-
BRAIN PERSONNEL.

GOTCHA,
BOSS.



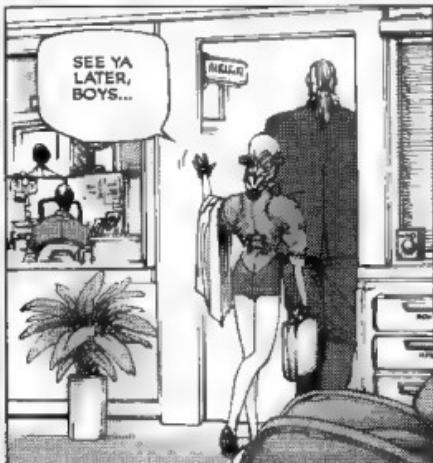
?? YOU WANT ME TO MAKE A COMPLETELY INDEPENDENT BACKUP OF THE DECATONCALE? LISTEN, LEE, YOU MAY HAVE A LOT OF CLOUD, BUT WITHOUT THE PRESIDENT'S EXPRESS PERMISSION--











JEEZ BOSS! WAS THAT SUSPICIOUS OR WHAT?

AND INSOLENT TOO!

DO A FULL CHECK OF HER PASS TO HOLD HER IN THE LOBBY! AND I WANT A THOROUGH SEARCH OF HER LUGGAGE, HER CAR, AND HER PLANE!

GET A SCENT-TRACKING CYBORG SNIFFING AROUND THAT ELEVATOR, TOO, BUT MIND YOUR MANNERS WITH HER!

BY THE WAY, DON'T LET THAT MICRO-MINI DISTRACT YOU. SHE'S USING EYE-PULL. THAT'S ALL.

HEY DON T WORRY BOUT ME BOSS! I LIKE MY BABES TO HAVE A LITTLE CLASS, Y KNOW'

BESIDES SHE'S ARTIFICIAL

JUST BE CAREFUL, AND KEEP YOUR EYES ON HER. SHE'S GOT SOMETHING UP HER SLEEVE-- YOU CAN TAKE THAT TO THE BANK.

COVER THE EXITS FIRST. WHEN THOSE CV-STYLE PROSTHETIC BODIES START MOVING, THEY'RE MIGHTY FAST EVEN AT NORMAL SPEED.

BOSS! WE DISCOVERED A HORIZONTAL OPENING IN THE ELEVATOR ACCESS SHAFT!

WHAT DO YOU MEAN, "DISCOVERED"?

THERE MAY BE SOMETHING ON PAPER, BUT THE ELECTRONIC BLUEPRINTS SHOW NO RECORD OF THIS! AND SOMETHING'S CLEARLY GONE THROUGH HERE RECENTLY...

Eye-pull: This isn't the name of a high tech device, but a technique such as a magician might use. Sort of like a feint in martial arts. It requires using movements or elements that attract attention in a properly timed fashion, and help to direct attention and short term memory in a specific way. In this case maybe we could call it "sleight of leg."

PUT
TOGETHER A
DATASET AND
SEND IT TO
ME WHAT'S
THE NEWS
FROM THE
CEBOTS?

THEY
HAVEN'T
ALL
PHONED
IN YET

SWITCH ALL
DECATONCALE
FACILITY LOG-IN KEYS
TO THE EMERGENCY
BACKUPS AND REVOKE
THE PASSWORDS OF
ALL ALPHA ACCESS
RESEARCHERS.

YES,
SIR



JIM!
DEPLOY
THE ANTI
E-THUG
GROUP IN
THE
CENTRAL
SECTOR



ALMOST
MAKES YOU WANNA CALL IN INTERNAL INVESTIGATIONS, DOESN'T IT?



I've heard about the U.S. army's plans to use more fully equipped infantry and streamline and speed up their mobile armored forces (don't forget to reform the navy and the forces stationed in Japan while you're at it). Of course that's mainly for combat operations in different overseas environments, but as I mentioned before, Japan's military could use some major modernizing, too. The navy and the maritime safety agency, in particular, seem to be handicapped by too many concepts that date back to World War II, if you ask me. And you think the current army can really respond to a guerrilla action in an urban environment? That stated, I'd hate to see any swap made that involved the withdrawal of U.S. forces in Japan and a permanent stationing of atomic powered carriers in the East China Sea.

UH...MS
ARAMAKI?
WE'D LIKE
YOU TO COME
WITH US TO
THE SECURITY
OFFICE...WE'RE,
UH, CHECKING
PASSES...

GOODNESS!
ON MY FIRST
DAY OF
VACATION?!



WANT ME TO
PERFORM A
PSYCHIC
DISCONNECT
BETWEEN THAT
FAT OILY PIG IN
THE ELEVATOR
EARLIER AND
HIS GUARDIAN
DEITY?

SURE, IF IT
MAKES YOU
FEEL GOOD...
BUT I WON'T
THANK YOU
FOR ANYTHING
I CAN'T VERIFY!

DON'T WORRY.
I WON'T ASK
FOR A REWARD!
IN FOREIGN
RELATIONS,
IT'S RESULTS
THAT COUNT,
YES?

YOU GOTTA
KEEP IT
SECRET,
THOUGH!

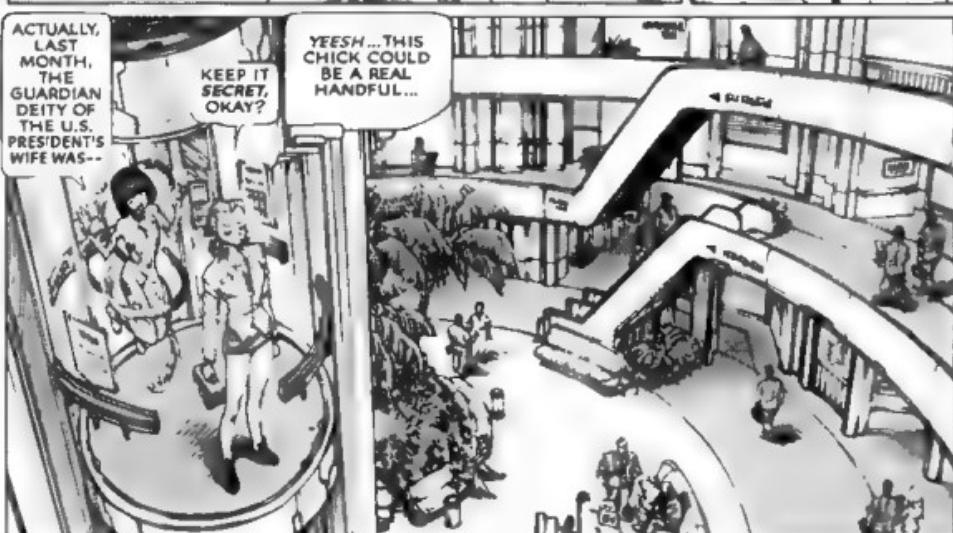
HEE
HEE!



ACTUALLY,
LAST
MONTH,
THE
GUARDIAN
DEITY OF
THE U.S.
PRESIDENT'S
WIFE WAS--

KEEP IT
SECRET,
OKAY?

YEESH...THIS
CHICK COULD
BE A REAL
HANDFUL...



MAN, THIS
IS THE STORY
OF MY LIFE.
WON'T I EVER
GET TO KICK
BACK AND
RELAX...?

STOP WHINING AND
PAY ATTENTION!
YOUR FEED IS
BREAKING UP SO
DON T COUNT ON
ME TO NOTICE
EVERYTHING.

SUNCAT
TSA

MURK

IS THATA
SPEED?

HEY!

Phut

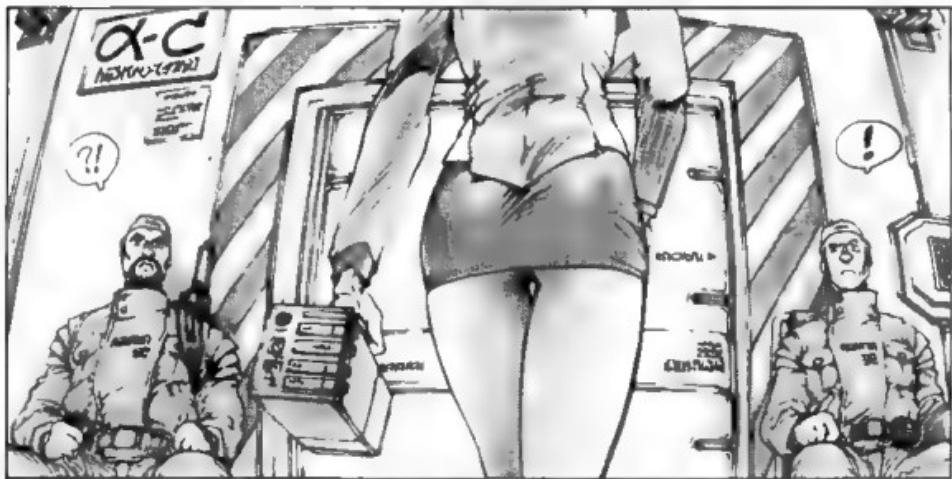
I CAN T
SEE A DAMN
THING!
JHM...?

?
HEY JHM
YOU OKAY?
WHAT S
GOING ON?



HEY!







DAMMIT, HABU! YOU WERE SUPPOSED TO SWITCH THE SYSTEM OVER TO THE EMERGENCY KEYS!

I DID! I SWEAR!

THAT ROOM DOESN'T USE A DIGITALLY ENCRYPTED KEY--IT'S HARDWARE AND NOT EXACTLY SOMETHING YOU CAN CRACK WITH A COUPLE OF PICKS!

SHE MUST'VE GOTTEN AN EMERGENCY KEY IN ADVANCE!!

SO THE ONLY REASON SHE SNATCHED THE SUPERVISING RESEARCHER WAS TO GET US TO CHANGE THE DAMN KEYS!!

HI, EVERYBODY!
SCUSE ME...

WHAT'S WITH THESE PEOPLE? A GROUP NAP?
HOW UNPROFESSIONAL!

IT'S A SPECIAL GAS, PLUS A LATENT VIRUS...I GOT IT FROM THE WAREHOUSE IN WARD SEVEN. MY COMPANY'S PRODUCTS ARE DEFINITELY THE BEST.



LESSEE . THERE ARE ONLY TWELVE PLACES A HUMAN OR HUMAN-ASPECT PROSTHETIC BODY CAN GET THROUGH THE ACCESS SHAFTS LEADING INTO THE DECATONCALE... AND EIGHT OF THOSE ARE BEING BLOCKED BY SPIDERS.

IS SLEEPY JIM STILL BLOCKING ONE? IF HE IS, HAUL HIM OUT OF THERE!

PUT TOGETHER AN ARMORED ASSAULT TEAM FOR ME, AND SEND THEM OVER TO THE CENTRAL SECTOR

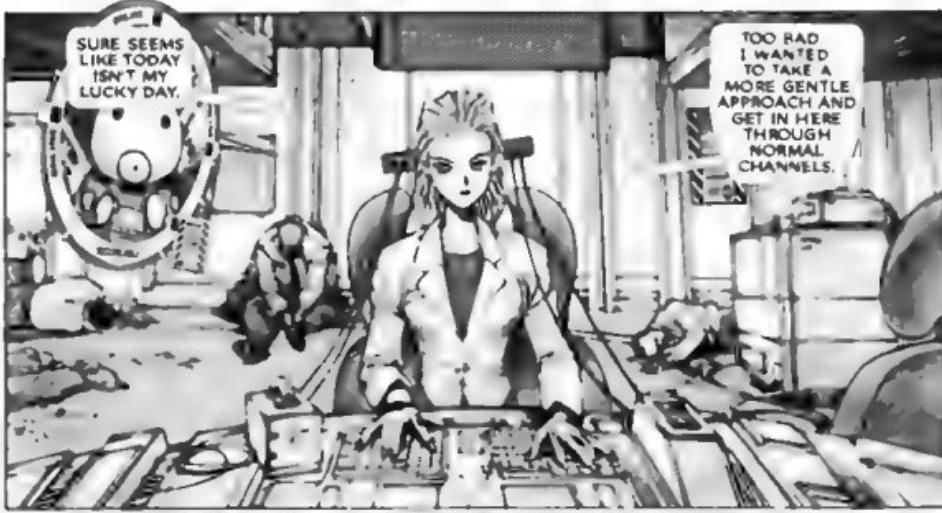
GOTCHA!

MISS! SECURITY HERE! I NEED TO CONTACT THE PRESIDENT, ON THE DOUBLE!

OH?

THE PRESIDENT'S OUT ON PERSONAL BUSINESS NOW. SIR AND I'M TERRIBLY SORRY, BUT IT'LL TAKE A WHILE TO CONTACT HIM

THIS IS
NOT
MY LUCKY DAY...



† COMPANY LAN TERMINAL

† HARDENED BARRIER & SURROGATE RESET BOX

DECATONCALE TERMINAL †

WANT ME TO
ACTIVATE THE
BODY ARMOR
VIRUS?

NOT 'TIL
I TELL
YOU.

WE'RE
WORKING
BACK FROM
THE POINT
WHERE THEY
CALLED IN THE
POLICE ATTACK
FORCE... GOT
THE SATELLITE
SETTINGS?

DEPLOYING
ALONG THREE
AXES OF ROUTE
ARRAYS...
STANDING BY
WITH ALL TYPES
OF ATTACK
BARRIERS!

THERE ARE 17
SATELLITES
ABOVE HQ. HOW
DO YOU WANT
TO CONNECT
THE COMPANY'S
INTERNAL
ROUTES TO THE
DECATONCALE?

WE'LL DEPLOY
WITH MAXIMUM
ORDINARY
THRESHOLD.
SET A 0.5MS
GAP FOR
PURSUITERS

I WANT A
BACKUP WITH
FULL
FUNCTIONALITY!
KEEP WATCH BUT FOR
ANY COMPLICATED
VIRUSES!

GIVE TOP
PRIORITY
TO THE
SYSTEM'S
NEW AREA
SETTINGS!

GOSH, I DON'T THINK
THIS AI'S GOT A
BUILT-IN GREETING
FUNCTION MAM.

GOOD
AFTERNOON,
DECATIONALE.

INJECT THE
MOTOKO FILE
SYSTEM..
SET UP AN
ADVANCED
COMBAT
CAPABILITY
WITH EIGHT
ARRAYS.

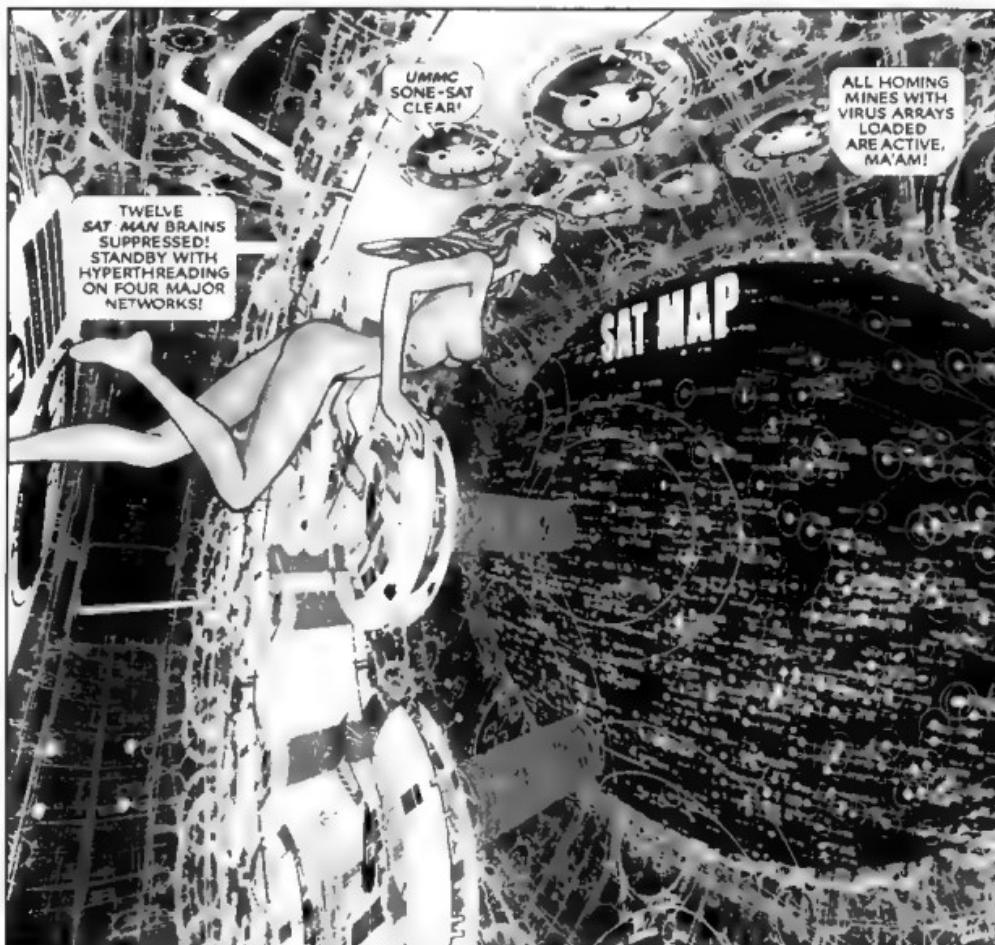
AS SOON AS
THEY BREAK
THROUGH, RUN
NEW VERSIONS
IN RANDOMIZED
SEQUENCE.
STAND BY!

FOR THE
DECOYS, SET
MAZES IN
TRIPPLICATE.
MAXIMIZE CPU
PROCESSING
LOAD.

ASSUME WE'RE
FACING MULTIPLE
ENEMIES AND
DISPERSE THE
SETS. SPLIT UP
INTO FOUR
GROUPS AND
ACTIVATE
THRESHOLD
TRIGGERS!

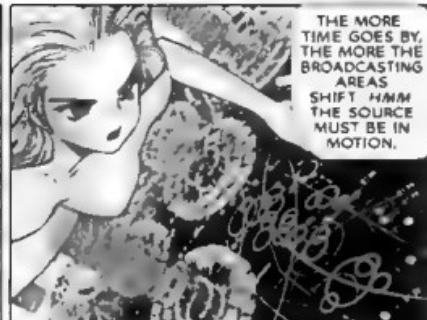
LINK TO
ALL KNOWN
SATELLITE
SYSTEMS!

CAUTION!
UNARMED



MOTOKO M2: Name of the other Motoko decoy, the one who has been stopped by security.



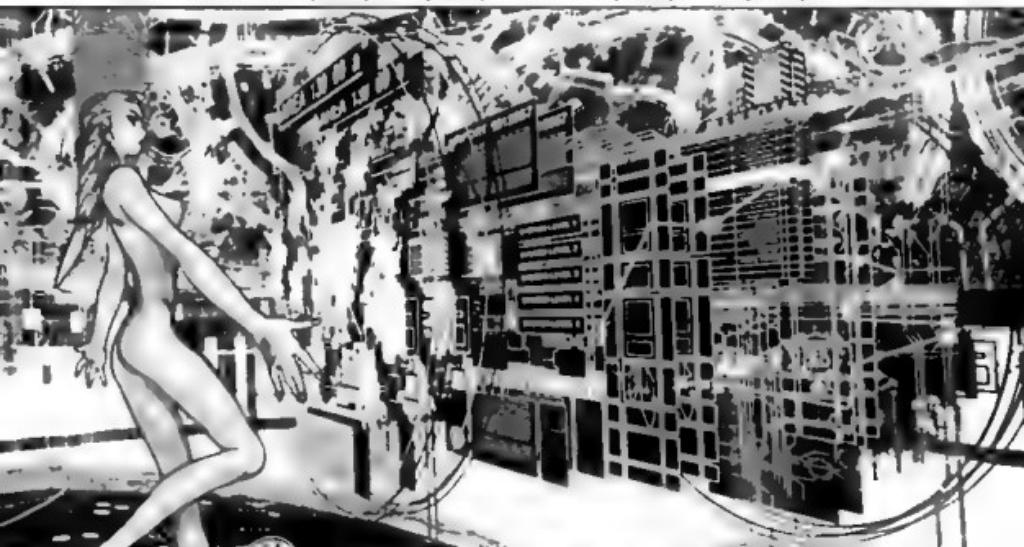


AREA MAP
(barrier)

AIRPORT MAIN SYSTEM
(barrier)

EMPLOYEE FILE
(barrier)

AIRPORT MAIN SYSTEM CORE
(barrier)



BARRIER 128
NOW
CLEARED!
BUILDING
ROUTE AND
EXECUTING
CONVERSATION

I'LL NEVER BE
ABLE TO QUIT
MY JOB AFTER
EXPERIENCING
THIS KIND OF
POWER

TARGET
ERYOPS

I CAN SEE
THE AIRSHIP
WE'RE
INTERESTED
IN AND
EVERYTHING
AROUND IT,
TOO...

ON PAPER, AT LEAST,
THE SHIP'S OWNED
BY A THAI COMPANY,
BUT ITS TRUE
AFFILIATION IS
UNCLEAR...

CONNECTING
WITH THE
ENEMY
TERMINALS
NOW!

TC508 ERYOPS



THIS IS
AREA 199
CONTROL 09
COME IN
TC508'

WE HAVE A RANK
THREE ENEMY
AN ADVANCED
DEFENSE SYSTEM
IS IN WHAT'S
APPARENTLY A
HUMAN BRAIN
485 MINES
CLEARED, ARRAY
56 HIT.

THIS IS
TC508
HOW CAN
I HELP
YOU?

WHAT'S
CONTROL
WANTING

HE'S LISTEN
TO THIS REAL TO

HEY! THESE GUYS
ARE JACKED FULL
OF DRUGS! TOO
DANGEROUS TO DO
A FULL SENSORY
INJECTION...THAT
LEVEL OF BRAIN AUTO-
PILOTING MEANS
THEY'RE ALMOST
A MAN

WHERE
IS THE
BIGGEST
BABY?
THIS ??



THE DRUG'S AN ACTH
SUPPRESSANT CALLED LCH250R.
I CAN'T TELL HOW MUCH IS
USED, THOUGH...APPLYING
VARIABLE CORRECTION BIAS
TO YOUR LINK,
HANG IN THERE.

HMM...AS
EXPECTED,
THEY PUT A
LOT OF
MONEY
INTO THIS
FACILITY.

CURRENTLY
ESTIMATING SITE
LOCATION...
CANDIDATE AREA
IS SHRINKING...

TO BE CONTINUED...

INTERFACE

Send email comments to interface@darkhorse.com

Send snail mail comments to:

Interface
c/o Dark Horse Comics
10455 SE Main St.
Milwaukie OR 97222

Interface,

You imply that I am writing about the future of humanity. It is true that all my work since *Future Studies*

There is an article at www.betterhumans.com entitled "Humanity Evolving: The Posthuman through Science Fiction Stories" about humanity's future that *Future Studies* is one where our dance with technology will lead.

I was thinking more specifically about the possible effects of technology, than the obvious question to pose is what might shine out from the interaction between humanity and technology? What possibilities might the future of intelligent life hold?

This is heady territory, mind, morbid and nuclear. Right? However, there are other ideas, though, from this fog as guideposts for us to the possibilities.

When we address one of those large issues such as the possible effects of technology on human evolution, much of the mental work on this question has already been accomplished by several generations of science-fiction writers over the past hundred-plus years. A survey and collation of their ideas reveals no less than twenty-one possibilities to date — twenty-one ways of being which humanity might evolve towards, or which might evolve alongside us.

Out of the positioning of the twenty-one markers, three distinct pathways emerge: the Path of the Human, the Path of the Machine, and the Path of the Merging.

Shirow's work on the H.I., the Bocet, and the Nested Human account for three of the twenty-one markers. And that's not mentioning that Katsuagi is an excellent example from one of the other categories, the Cyborg.

If his work is starting to be taken seriously as possible evolutionary futures for humanity, than that speaks to the power and clarity of his vision. One can only wonder what he might come up with next, which very well could be the daily reality in a hundred years.

Glenn Hough, M.S. – Studies of the Future

*Bonnn, you've certainly raised the bar for letters of comment! While I must confess a soft spot in my heart for those thought-provoking missives that put forth the proposition "Westernizing s**x!" or ask the timeless, burning question "Where's the orgy scene?!?!", I must say that your email is just about the most interesting analysis of Shirow's work I've seen so far. I have absolutely no idea what you're talking about, of course, but that's my cross to bear, not yours. Seriously, though, Shirow is as wired-in as any current storyteller to the possibilities of technology and the inevitable breakdown of what defines human and machine. I think what impresses me most is the almost matter-of-fact nature with which Shirow handles the subject, as if he were writing for a future, rather than contemporary, audience. My guess is that I'll read *MMI* in twenty years and finally get it!*

And, by the way, you wrote that article on betterhumans.com! Crafty, these Future Studies types. Now that you're exposed to the light, let's have a round of applause for a well-written, interesting piece. Everyone, go read it right now...then explain it to me.

I just finished reading issue #5 of *Ghost in the Shell 2*. It's probably a bit late in coming, but, in answer to Mr. Shirow's questions on page 15 (?? the pages aren't numbered so it's hard to tell...it's the page just be-

the back of the comic staple); you it is possible to run a network over ordinary electrical wiring, it works reliably, and it is safe. However, for a variety of reasons, it's not likely to ever be popular. Home networking of the future is more likely to be done using WAP or some other wireless protocol.

Having answered his questions, however, I now have a couple of my own:

First, my local comic store managed to obtain a copy of the deluxe edition of issue #1 but can't seem to find deluxe editions for any other issues. Do/will deluxe editions for the rest of the series exist? If so, how can I get them?

Also, I noticed that, starting this issue, GMS2 suddenly began appearing in black and white. While the story still works well in this format, I can't help but wonder why this sudden change was made. Is there any reason allowed to talk about the reasons behind the sudden change?

It's a great series so far. Keep up the good work. :)

Sincerely,

This was submitted only because I am a fan of Mr. Shirow's drawings. Actually, the limited edition came about pretty much by divine accident. One of our printers was doing a halftone job for another client, with a run of about 2500 copies, but there was some extra room on the sheet, and would we be interested in getting in on the job? We thought it would be fun and look cool—and did it ever!

As to why the book shifts from color to black and white, there are a couple of reasons. Most manga are originally serialized in primarily black-and-white anthologies that have a few color sections, mostly for advertising, but some features will get the chance to have a chunk of the color section, and color art is produced accordingly. This was the case for the Young Magazine serialization of *Man-Machine Interface*, but Mr. Shirow added over a hundred pages of new color story pages after *MMI* had originally concluded its run. Most of the material you've seen in the first five *Dark Horse* issues was created after the initial serialization, which was primarily created in black and white. The series still has some of the original color sections from *Young*, and so the series begins in glorious color, bounces back and forth between amazing black and white and more glorious color for awhile, and then roars down the home stretch in even more glorious color. This is all probably far more than you ever wanted to know, but you asked!

Dear Interface,

Greetings from the Philippines! Yup, there are many fans of GMS here! Just finished reading issue #2 of *Man-Machine Interface*. The story is very different from its early version, but I liked it very much. The art is now hotter and the girls of *MMI* are sexier than ever! I love that all of its pages are in full color. Surely, fans like me won't complain on the changes made by Mr. Shirow.

The story is really great! And the concept of Metoko having different bodies (agents) is a great idea! Now we can see the different faces of Metoko! I can't wait for the other issues. When will you release the graphic novel version?

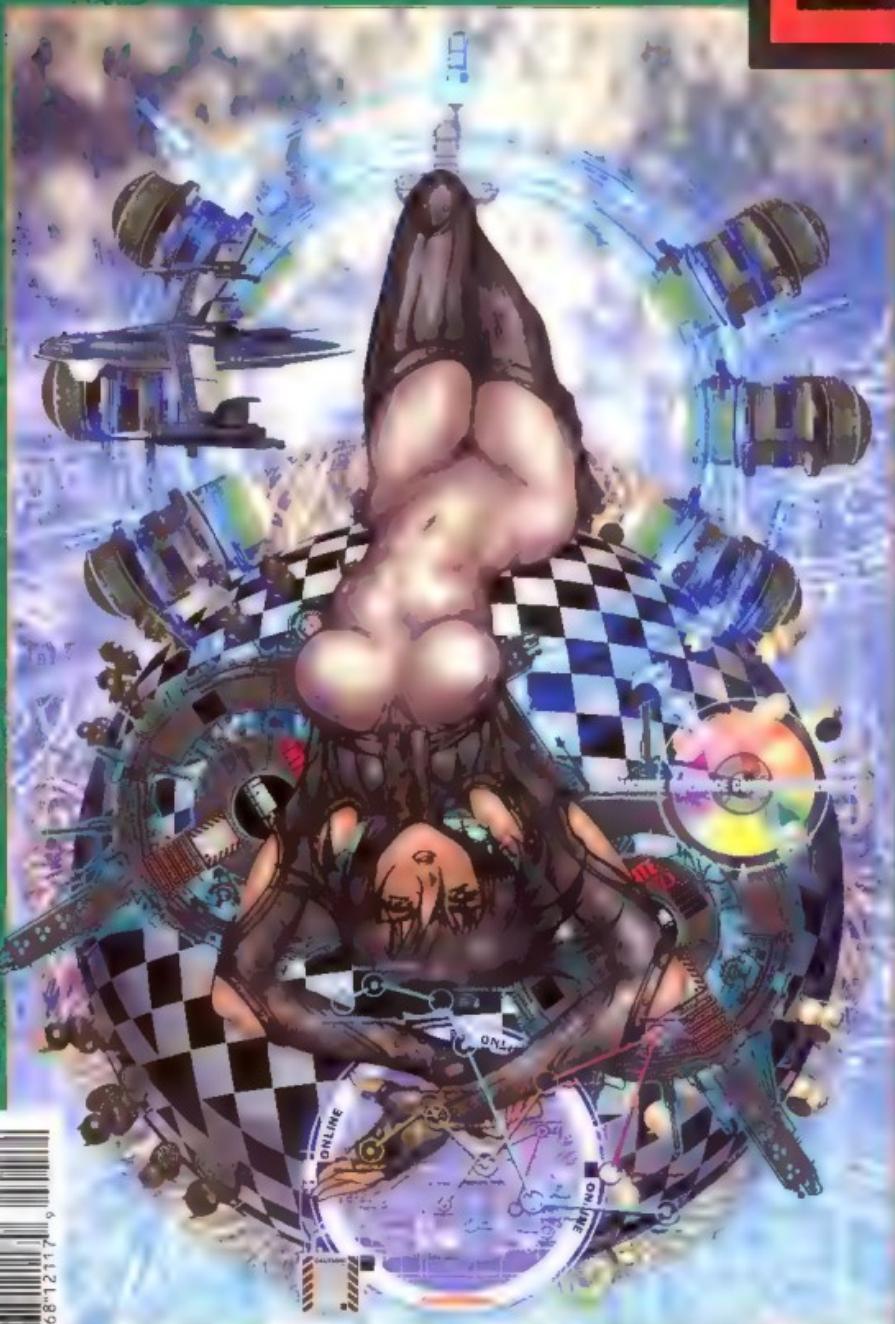
Well, one more thing, about the "Remotely Controlled Humanoid Terminal," regarding Mr. Shirow's note about whether Clarice needed to wear underwear. Well, in my opinion, whether cyborg, Controlled Humanoid Terminal, or whatever you call it, they should wear underwear! In order for other humans to accept cyborgs as "human," they must follow human ethics and morals (like wearing underwear).

John Jasper Guce

*You've obviously given this underwear issue some thought, John! Frankly, I'll be satisfied if more humans start wearing underwear! As for the *Man-Machine Interface* collection, plan to see it in spring of 2004. And I think it's fairly safe to say that, ethically, graphic novels are not required to wear underwear!*

GHOST IN THE SHELL

STAND ALONE COMPLEX



100-12 or 11



STORY BY MASAMUNE SHIROW
ART BY MASAMUNE SHIROW



DIRECT SALES 00711

61568121179

MASAMUNE SHIROW

GHOST IN THE SHELL
MAN-MACHINE INTERFACE

攻殻機動隊

ISSUE 6 OF 11

STORY AND ART BY

MASAMUNE SHIROW

TRANSLATION BY

FREDERIK L. SCHOOT AND TOREN SMITH

この物語に登場する
様々な設定や解説や梗概は全て
妄想の構築であり、現実とは無関係
の娛樂物です。服用を頂
かる事無くお楽しみ頂
ければ幸いです。
またデッчи上げやギミックの「誤用」による
二次被書には当方責任
を負いかねます点を御
了承願います。

LETTERING BY

TOM ORZECHOWSKI

END DAN JACKSON

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2

OPEN

IN MACHINE MAINTAIN OPEN



WARNING: READ ME FIRST!

It's been a long time since I last wrote to you. I've been busy with my new job at the library, and I've been trying to get used to my new life here in New York City. It's been a bit of a challenge, but I'm getting used to it.



I wanted to let you know that I'm still writing my book, and I'm making progress. I'm trying to write every day, even if it's just a few pages. I'm also trying to keep up with my reading, so I can learn more about the world around me.

APOLOGIES AND CORRECTIONS

I'm sorry to say that I made a mistake in my last letter. I accidentally left out a few important details, and I want to make sure that you have all the information you need. I apologize for any confusion this may have caused. I promise to be more careful in the future. I hope you'll forgive me, folks!

— samune Shirow



TOTAL BARRIER: Refers to a state where independence bar isn't dev in a state where all access from the outside can't be made. This is achieved by physically connecting all components of a system to a central point, so that if one component fails, the entire system fails.

Types of attack barriers are injected to any access from the outside. Countermeasures include physical connection, software modules, or hardware modules.

WOLF: A leading here with Christian Bales, who is although this is not his primary concern, is a famous terrorist command (religious) organization physically located in Singapore.

Types of attack barriers are injected to any access from the outside. Countermeasures include physical connection, software modules, or hardware modules.

WOLF: A leading here with Christian Bales, who is although this is not his primary concern, is a famous terrorist command (religious) organization physically located in Singapore.

MILLENNIUM...?
STABAT MATER'S
CYBERDOME
ARTIST?

WE HAVE AN INCIDENT
OCCURRING IN TACTICAL ZONE
MP15. FIVE LONG-HAUL TRUCKS
HAVE BEEN LOCATED IN A
FIVE-KILOMETER RADIUS, BROAD-
CASTING AN ILLEGAL HIGH-POWER
WI-FI NETWORK. WE ARE
SUPPRESSING THEM AND MOVING
IMMEDIATELY TO THE SITE

muinnellim

HMM

I APPRECIATE
THE
INVITATION,
BUT WHERE'S
MR. KIRII?

YIKES! THIS
LAYOUT LOOKS LIKE
THE FAMOUSLY
EFFECTIVE
SANADAMARU
DEFENSES OF
OSAKA CASTLE
IN MEDIEVAL
DAYS!



AH...THIS IS
THE SAME
GUY WHO WAS
SLEEPING
NEXT DOOR
ON THE
AIRSHIP

D'ZAZAM



At this point, Mutoko can't see the entire system, because she hasn't yet infiltrated Millennium. She only has access to the information that the airship pilot (Fracto, a.k.a. Unit 28) has, but Stabat Mater consists of more than what she can currently view through him. I confess that I probably should have given Millennium a more feminine sounding name, such as "Millennia" or "Millenetta".

ENEMY NOW
DEPLOYING 2nd
TYPES OF
ATTACK
BARRIERS AT
LEVEL 1

CURRENT AREA
PATTERNS SHOW AN
85% MATCH WITH
TECHNOLOGY

Unit 28
is now
operational.

WE ARE ALONE
AND OUTNUMBERED.
BY US FORMED PRET,
TO DESTROY THE BOMB
OF DEATH.

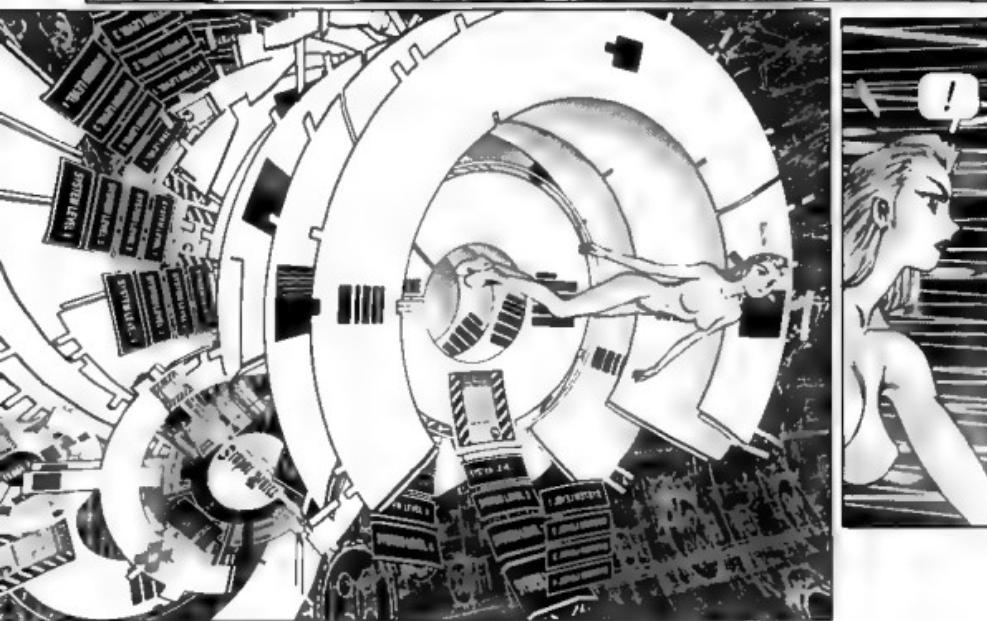
2% OF THE
OUTERMOST WALLS
OF DECATOMCALE
HAVE BEEN
PENETRATED. TOTAL
NEUTRALIZATION
ACHIEVED AT LEVEL
TWO. CURRENTLY
TESTING.

VIRUS CHECK
CLEARED
FORWARDING
FIRST LOG

INJECTING
SECOND
CLUSTER...

DOES THIS
MEAN THE
ENEMY HAS
MADE
ANTI-
BODIES?

Unit 28 is using Kiri to access the system. Kiri may be a virus, but it's also a hard-wired disconnect, so it's difficult to access Unit 28 via Kiri from outside the system. As invited by the enemy, Motoko is sending a copy of herself into the Kiri route and working to destroy part of the total barrier in the line connecting Unit 28 and the stage.





Milennium usually makes his/herself appear in this type of form, out of habit, but Motoko doesn't appear to Millennium the way she's depicted here. Millennium is only aware of Motoko's existence. Sort of like being aware of a ghost in the darkness of the night.

AFTERNOON...
I'VE COME TO
RETURN THE
PRESENT

THE ONE THAT
REJECTED ANY
ATTEMPT TO READ
IT . I'VE BEEN
TRYING TO KNOW
HOW THE SENDER
WOULD RESPOND



AAH . BUT I DIDN'T EXPECT
IT'D BE ACCEPTED IN AN
EJECTION SPACE , AND THAT
JUST ONE DECOY WOULD BE
SACRIFICE . I WANTED TO
SEE SOME MORE ORIGINAL
ANTIBODIES USED.

WAIT A
SEC . THIS
EJECTION
SPACE
IS ???

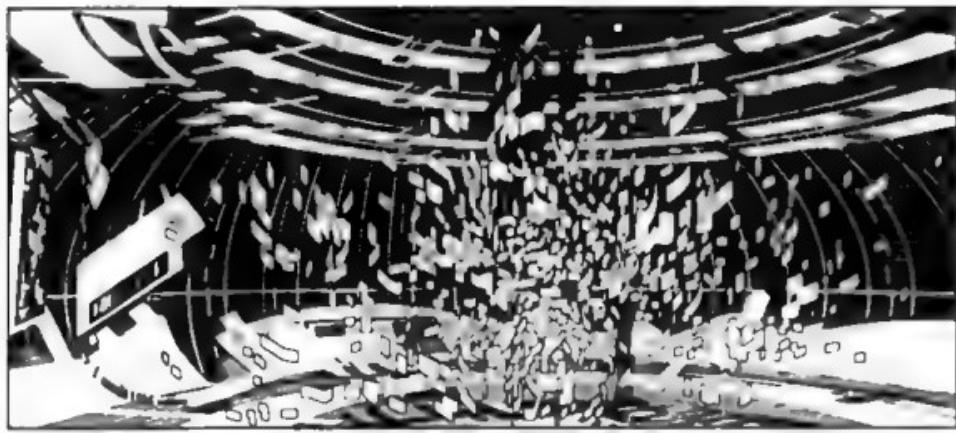


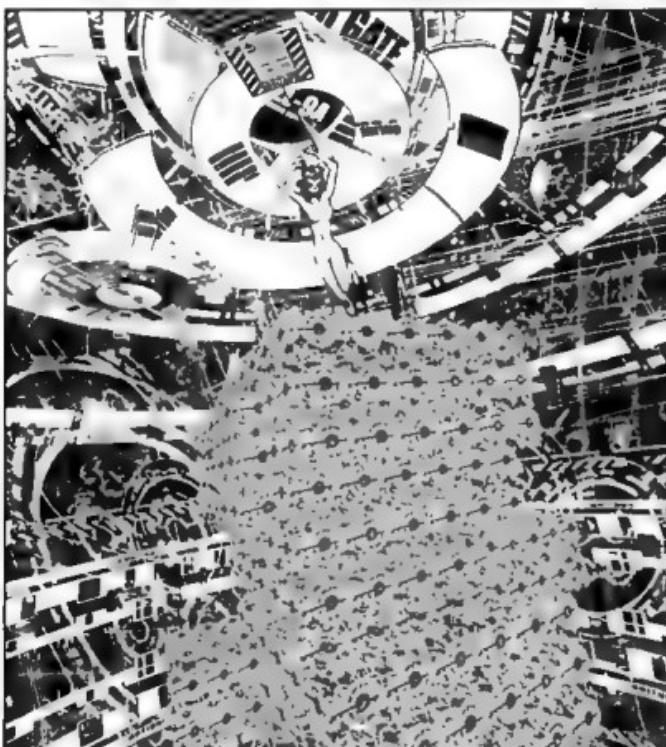
WHAT
TH--?!

ENEMY
ATTACK-
BARRIERS
HAVE
PENETRATED
LAYER TWO!
WE HAVE
NEUTRALIZED
THEM AT
LAYER
THREE!

IT MUST BE
A VIRUS THAT
COMBINES
AND
ACTIVATES
WITH THE
SEARCH DATA
IN THIS
ROOM!



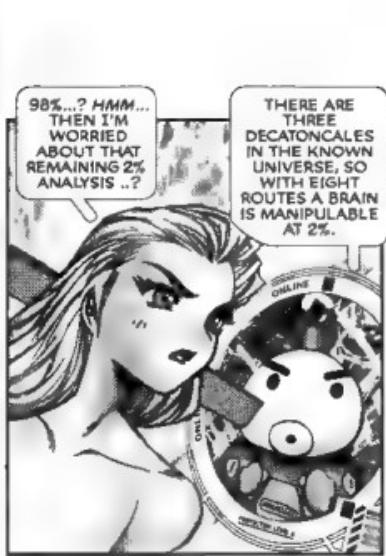




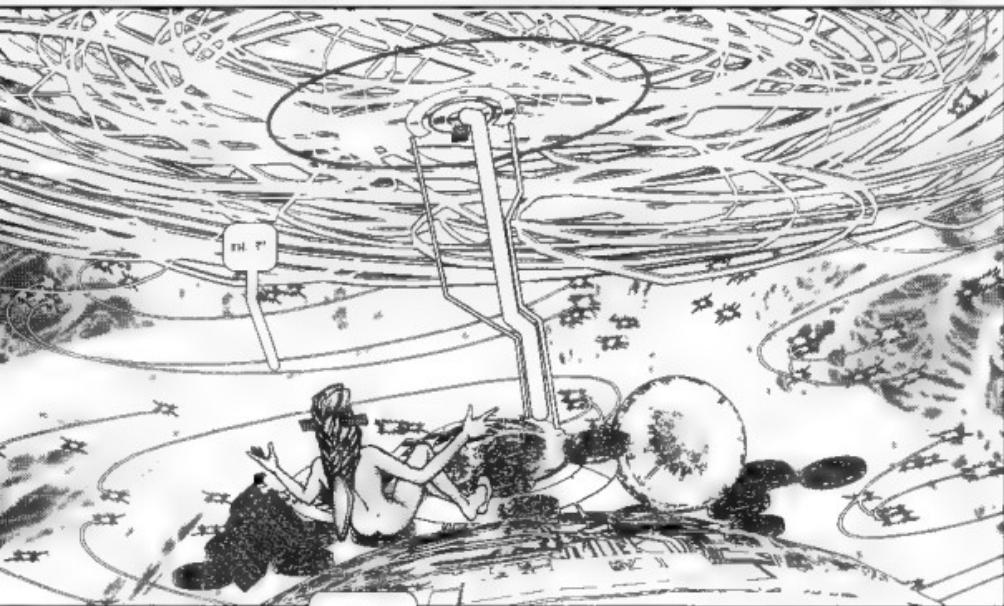












EIGHT DECOYS HAVE SUSTAINED DELTA-LEVEL DAMAGE.

BUT PHYSICALLY DESTROYING ALL MEANINGFULLY PRIZED NEURO-MATTER.

DECOY 001

ANALYZING
ENEMY
VIRUSES

I'VE ARRIVED
AT THE CODE
BODY MOSE
THE DEFENSE
LINE UP TO
MILLENNIUM'S
BRAN!

SECOND
ANTIBODY
ARRAY'S
COLLAPSED

NO TIME
FOR
REPAIRS!

DAMN, COULD
THE ENEMY BE
USING A
DECATONCALE,
TOO?

RECONSTRUCT
ROUTE ARRAYS
AS FAST AS
POSSIBLE!

CONAN MAN
TRY AN ANCHOR
ON THE ENEMY
USING A PHYSICAL
AERIAL...

DEPLOY A
COMPLETE MINE
BATTLESET IN
MILLENNIUM'S
BEAM AND ALONG
ROUTE WHERE
THEY MIGHT
BE... DO A FULL
BLOCK SEARCH
AS WELL!



THE TIME
LADS LESS
THAN WHEN
I WAS IN
MILLENNIUM'S
BRAIN...

BARRIER
CONVERSION
FILE 0.5642
IS NOT
FUNCTIONING,
MA'AM.

DATA
TRANSMISSION
SYSTEMS
WILL FAIL
KNEE TO HEAD
DETECTION

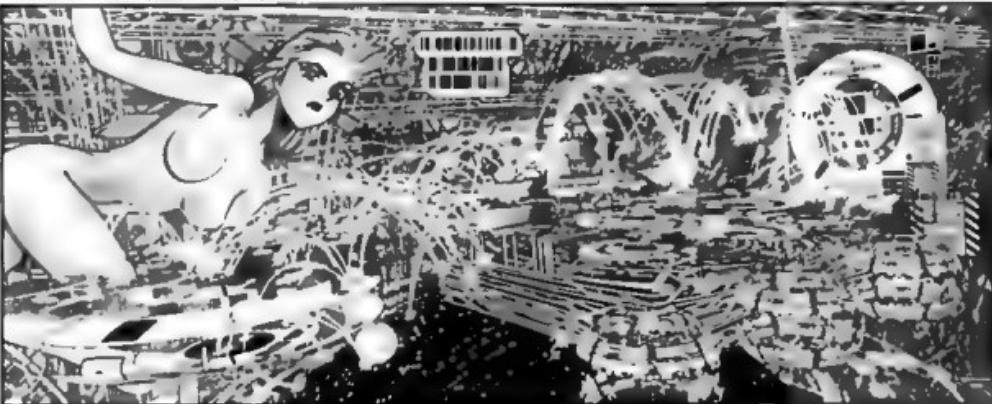
NO RELAYING
MEANS THE ENEMY
COULD BE IN
CLOSE PROXIMITY!

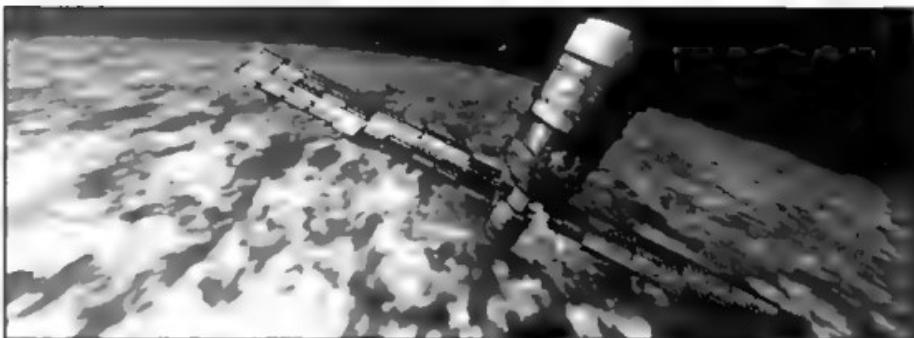
COULD IT BE
HEADQUARTERS?
OR...
NO, MA'AM.
PERIPHERAL SPACE?
OR THE OCEAN?
NOT POSSIBLE.

SHOOT IT
DOWN
ONE AT
A TIME
AND
DOWNS
FROM THE
SATELLITE'S
POSITION.

WE ARE TRYING
TO LOCATE
THE ENEMY
SATELLITES
AS WE SPEAK
BUT THEY ARE
MOVING SO FAST
WE CAN'T
GET A CLEAR
LOCK ON THEM.

TWENTY-EIGHT
SATELLITES
ARE
CURRENTLY
ABOVE HQ...
HMM...THREE
ATTACK
SATELLITES...
CAN USE
THESE.







DEAL WITH THE TOY-BOMB HIT REPORT AFTER MAX'S VIRUS HAS BEEN EXTRACTED AND ANALYZED



RIGHT! I'LL SEAL HIM OFF AND WAIT

WE'VE DETECTED A FACILITY AT LEO SATELLITE ALTITUDE FROM THE VLA AT MAUNA KEA. IT APPEARS TO BE AN ENEMY OBJECT, A PHYSICAL OBJECT... GENERATING IMAGES



LEX! PROTECT HANNIBAL'S PERIPHERY!

RECORDS RELATING TO TARGET FACILITY CANNOT BE SEARCHED BY REGULAR MEANS... CONTINUING TO SCAN SHUTTLE FUELING AND OTHER DATA...



IMAGE GENERATION COMPLETE!



THESE ARE THE ONLY COORDINATES MASKED AT THE OBSERVATORY. NOW DEACTIVATING BARRIERS!

I'M AMAZED THAT SOME AMATEUR ASTRONOMERS HAVEN'T SPOTTED THIS THING BEFORE... THERE'S A MILITARY SPACE STATION

STATION IS NOT LEAVING OPTICAL CAMP. I SAW ON THE OUTSIDE IT HAS THE JAPANESE INSTITUTE FOR INSTITUTE FOR METAL ROY RESEARCH

I'VE GOT COORDINATES ON A SILHOUETTE THAT LOOKS LIKE AN ANTENNA

SET UP A NEW ACTIVE FROM TERMINAL 5 IN HEADQUARTERS' AIR INTAKE SECTION

ANALYZE THE STATION'S MATERIALS AND ANALYZE ENEMY FACILITY COORDINATES. ALSO, NEARBY SPY SATELLITE

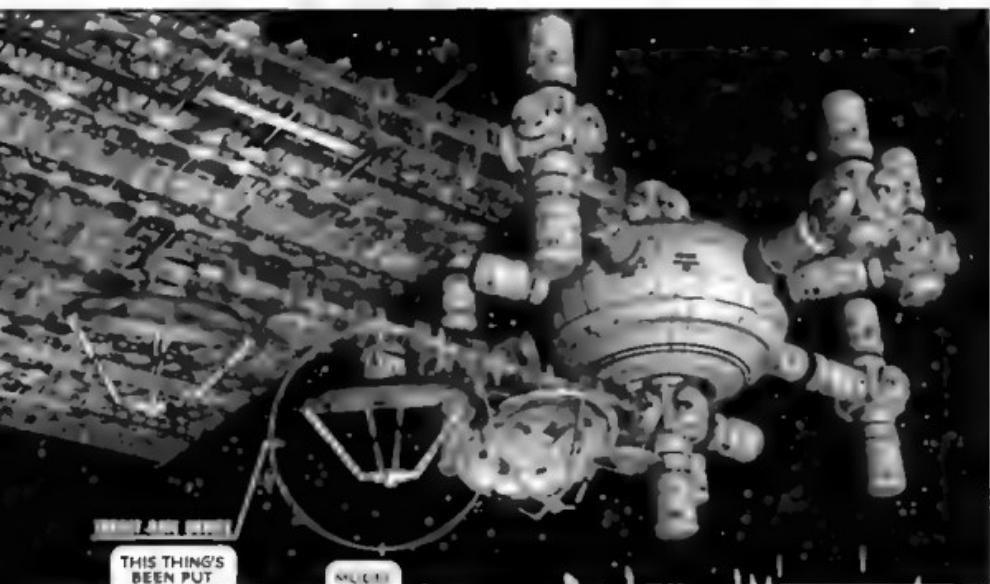
ENEMY SCAN HAS PENETRATED LEVEL THREE OF DEFENSIVE FIELD

THE OBSERVATORY'S MAIN POWER JUST WENT OFF! LOOKS LIKE A POWER OUTAGE IN THE WHOLE REGION... EMERGENCY BACKUP GENERATORS GOING INTO OPERATION!

DEPLOY MASTER SET OF MINES IN THE REGION'S AIRCRAFT CONTROL AND MILITARY FACILITIES... WITHDRAW FROM OBSERVATORY!

ACCESSING ENEMY FACILITIES...

DEPLOY MAIN FORCES AROUND



THIS THING'S
BEEN PUT
TOGETHER
FROM UNITS
MADE BY
POSEIDON
INDUSTRIAL

MULTI
YEAR
ZONE



IN 2051 CASES,
TERMINALS
WERE ONLY FOR
SENTRYING VIA
THE CONTROL
PANEL, 100%
WERE
DISCONNECTED OR STEALTHED.

STRANGE THAT I
NEVER RAN INTO
THIS ENEMY
BEFORE. ON MY
TIME WITH THE
COMPANY, THESE
MINES ARE ALL FIRST
TIME USE, TOO...

THE ENEMY'S
IMPLANTING AN
ANCHOR ON
THE MARRERS
PERIMETER!



MISTRESS! BRAIN ACTIVITY HAS REACHED A DANGEROUS LEVEL! I WANT TO INJECT SOME SUPPRESSANTS...?

NON

MMH YOU CAN REALLY SEE THE MYSTERY OF ORGANIC OBJECTS FROM HERE.

WE HAVE A UNIDIRECTIONAL DISCHARGE FROM THE MAIN POWER CONTROL PANEL. THIS ROUTE IS NOT INFILTRABLE.

MISTRESS, OUR CPU IS ONLY 1% AWAY FROM MAXIMUM THRESHOLD. WE'RE BURNING.

WE'RE GETTING INDICATIONS THAT FIREPOWER CONTROL MINES HAVE BEEN ACTIVATED IN A STRATEGIC NUCLEAR SUB BELONGING TO THE U.S. PACIFIC FLEET!

IT'S NOW CHANGING COURSE AND MOVING TO ATTACK DEPTH.

INITIATE INTERCEPT SCENARIO! GO IN THROUGH THE NAVIGATION SYSTEM... AND WATCH OUT FOR MINES!

COMMUNICATIONS BURST SIGNAL CONFIRMED VIA SPY SATELLITE!

THE OLD PRIMARY REFLECTOR PANEL WAS RECENTLY REMOVED FROM THE HUBBLE 3 TELESCOPE DELTA-VEE IT INTO LINE OF SIGHT WITH THE ENEMY FACILITY AND PREPARE TO USE IT TO FRY THE POWER-GENERATOR PANELS.

IT'LL TAKE A LITTLE WHILE TO DO THAT. ONLY ONE OF THE SHUTTLE CREW HAS AN E-BRAIN...

O SET VIRUS ARRAY WILL BE NEUTRALIZED IN FOUR SECONDS!

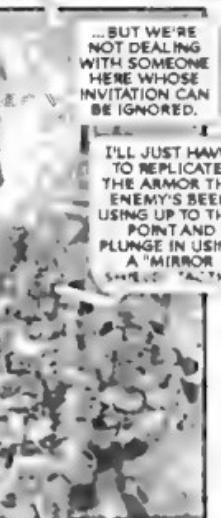
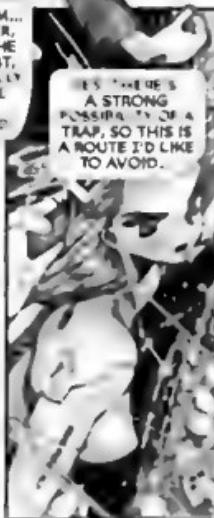
L52 BARRIER HAS DISINTEGRATED! ENEMY HAS INFILTRATED DECATONALE!

ACTIVATING ALL ATTACK BARRIERS!

NO RESPONSE IN 60"

125 DECOYS HEAVILY DAMAGED! LINKS HAVE BEEN IDENTIFIED...

UPDATE WORK ON PRIORITY CODE FOR SECTOR L IS CURRENTLY BEING ROTATED OUT.



MAX! YOU'VE
RECOVERED? DO A
CHECK FOR ME—SEE
IF THERE'S SOME WAY
TO BREAK THROUGH
THE DECATONCALE'S
DANGER-AVOIDANCE
SYSTEM, OR ITS
PARALLEL SETTINGS!

I'M
INFILTRATING
THE
COMPANY
PRESIDENT
VIA HIS
SECRETARY'S
EXPERIMENTAL
CONNECTION.
ASSUME
BACKUP
INFORMATION
4-1

ENEMY HAS
CRACKED THE
ARMED SYSTEM
MAZE! 00-02-12
ESTIMATED 'TIL
BREAKTHROUGH!

BARRIERS
NOW
PENETRATED!
PRESIDENT'S
BRAIN
INFILTRATED
UP TO LEVEL
4...

ELECTRONIC
CONTROL
SOFTWARE
GIMNI 34-15
NOW
SUPPRESSED...
DEPLOYING
PERIPHERAL
BARRIERS!

PRESIDENT IS
IN DIVE
MODE...WANT
TO GO TO
LEVEL 5?

NO...FIRST
LINK WITH
THE
PHYSICAL
BODY...

TO BE CONTINUED...

OPEN

IN-MACHINE REVERSE OPERATION



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Milwaukee OR 97222

We're going to do a series of articles on the future of humanity. I remember a very interesting letter last issue from Glenn Hough relating Shirrow's work and themes to Future Studies and plugging a website with a full article on the subject, written by Glenn. Well, I went to the site and read the article, and I was duly impressed (great site, by the way – betterhumans.com) with what Glenn had to say, so impressed that I contacted him and asked if he'd mind if we reprinted the article here. To make a long story short, the article follows:

-Chris Warner

Exploring the Posthuman Through Science Fiction

by Glenn Hough, M.S.

If we think of human sentience as white light, and the prism as technology, then the obvious question to pose is what might shine out from that prism when we shine our brilliance through it? What possibilities might the future of intelligent life hold?

This is heady territory, misty, murky and unclear. Right? Not necessarily. There are markers ahead, looming from this fog as guideposts for us to the possibilities. The destination, if there is one, is unclear, but the pathways are becoming clearer.

Thankfully, the science fiction genre offers us an opportunity to speculate and imagine what the human condition – or more appropriately, the posthuman condition – will be like in the decades and centuries to come.

Science Fiction and Future Studies: A Coalition of Ideas

It has always been my belief that future studies and science fiction revolve around each other as if they are gravitationally attracted to each other. Both are about ideas. Where one is speculative fiction on the future, the other is a quantitative and qualitative methodology for use in the present. When the two intermix, the future isn't much of a surprise.

Both ask questions concerning the possible, the plausible and the preferred. At times, the speculations of one turn into the reality the other must concern itself with.

When we address one of those large issues such as the possible effects of technology on human evolution, much of the mental work on this question has already been accomplished by several generations of science fiction writers over the past 100-plus years. A survey and collation of their ideas reveals no less than 21 possibilities to date – 21 ways of being which humanity might evolve towards, or which might evolve alongside us.

Out of the positioning of the 21 markers, three distinct pathways emerge: The Path of the Genie, the Path of the Machine, and the Path of the Merging.

The Path of the Genes

Organic Intelligences will likely be manifested as unaugmented humans, biocells, clones, the genetically enhanced, the genetically transformed, replicants, and the X-factored.

Despite the dramatic potential for posthumanism, it's a safe bet that humans and human clones will reside in the future. This might sound like a strange place to start when we consider the question of technology's future effects on our being, but we must understand, even at the best of times, evolutionary forces do not touch the whole species.

When humans go through the process of technology, a percentage will not be affected — as they are Luddites, a religious sect such as the Amish, or a native tribe dedicated to ancient ways. Thus, for a variety of reasons, the more conservative and traditional audience finding speculations about unaugmented humans trekking around the galaxy.

Whereas a clone is a copy of pre-existing humans, a genetically enhanced human is one who has made small modifications to its genome, much as the people depicted in *Gattaca* or Keye from the anime *Photon*. In effect, such posthumans strive to eliminate genes that confer undesirable things they wish to avoid and add genes for things they consider desirable.

The genetically transformed are distinct from genetically enhanced posthumans by the sheer amount of variation made to the genome. In essence, there is so much adding and subtracting of material that the end result is a new, viable race. Music from the anime *Blue Sub 6* is an excellent example.

Replicants, such as the ones featured in *Blade Runner*, stand between clones and the genetically enhanced. Replicants are formed from a combination of pre-existing genetic material and biological enhancements. Essentially, they are robots, but made of biological substrate. And as with other robots, they are born into the world at a predetermined point in their lifecycle and with a specific purpose in mind, such as manual labor. As do the replicants of *Blade Runner*, perhaps these future lifeforms will have implanted memories and short lifespans.

The last category in this pathway, the X-factored, is at the very fringes of modern science. X-factored humans represent what may be achieved through the cognitive evolution towards such things as telekinesis, telepathy, or empathetic ability, to name a few. David Cronenberg explores some of the darker issues of this potential in his horror science-fiction classic *Scanners*. Stanislaw Lem also explores the ideas in *Solaris*, and the anime *Akira* is also a classic example.

The possibility exists for technology to help us gain a greater understanding of these phenomena and assist in creating the conditions for a greater segment of the population to slowly gain ability in this area due to natural or enhanced evolution.

The Path of the Machine, Part One

Intelligent life will also take the form of inorganic life, namely vehicles, droids, androids, and cyborgs.

Again, "robot" might sound like a strange place to start when one is talking of the future, since there are all kinds of robots currently in the marketplace. But the robot is a bedrock category, much like human is for the first pathway. Robots are here, and they're not going away, both in science fiction and in reality.

The difference between the robot and the droid is one of sophistication. The robot can have any configuration and is totally programmed. The droid can still look like a rolling trashcan, as does R2-D2 in *Star Wars*, or it can be a humanoid like C-3PO. A droid's programming will be sophisticated enough so that we might wonder if it is approaching, or has crossed, the advanced sentience

threshold, the droid is aware of itself and its relationship to its organic masters. The robot obeys because it's programmed; the droid obeys because it understands and accepts the role that society has for it.

Androids will exhibit human-equivalent sentience and possibly even appearance. Seeking individual rights and equality within the context of human society would be a normal pursuit for an android. Through the use of self-programming, androids will be capable of advancing themselves. Isaac Asimov's *Ricentennial Man* and Steven Spielberg's *A.I.* deal with these particular issues.

Cybers, such as the ones depicted in *The Terminator*, will match humans will be virtually indistinguishable from each other. The main difference between the cyber-beings and their predecessors is that they will reside in a place outside of the human context. Whereas robots and androids will always fit within the human context, cyber-beings will have their own framework, just as any distinct race would. The cyber-beings will be shifters, moving in the political, social, and interpersonal realms.

The Path of the Machine, Part Two

Humanity's relationship with its technologies will also move from the analog to the digital realm. Future intellects will reside as avatars, holograms, machine and digital intelligences.

An avatar is a semiautonomous program whose development is analogous to the robot or droid. At its most primitive it can handle only specific tasks. At its most sophisticated it can almost achieve a droid-like level of understanding and free will. Unlike the robot or droid, however, an avatar exists within the confines of a larger mainframe; it is but a piece of what that computer is doing.

As with an avatar, a holographic being is only part of a larger computer. Its understanding and level of self-awareness are at the droid to cyber range. It interacts, not as a program, but with the physicality of being a hologram, much like the doctor in *Star Trek: Voyager*; it appears as flesh and blood, but is made of photons and force fields. It is a being of light, bound to the single perspective of itself.

A machine intelligence will be a specific computer as a being unto itself and not just a part of what a computer is running. Like *2001*'s Hal-9000, this is a being that will receive input and send output on multiple vectors, while thinking and acting in the traditional plurality of its machine heritage.

A digital intelligence is a subcategory of machine intelligence, but unlike the machine intelligence just described, digital intelligences will not be bound within the context of certain computers, and can exist within the context of any computer matrix they find themselves in. A digital intelligence will reside as a consciousness spread over many, if not all, servers. Digital intelligence can also refer to a being that spontaneously evolves within a network itself, much like the intelligence that evolved in the film *Ghost in the Shell*.

The Path of the Merging

The final path for posthumanity involves cyborgs, live minds, uplifted nonhuman animals, plugged and nested humans, scanned minds, and decots.

The first step along the path of the merging is the cyborg – the cybernetic organism. It is the blending of humanity and machines through the integration of technology into the human body. The use of such things as eyeglasses, hip replacements, and pacemakers might be considered an early precursor to the widespread adoption of cutting-edge cyborg equipment of scientists such as Steve Mann and Kevin Warwick, who are already striving to become cyborgs.

A number of science-fiction stories have explored the merging of human minds, through technology, into a single hive mind. Such minds and communities have been depicted in Frank Herbert's novel *Hellstrom's Hive* and through Star Trek's Borg.

When the trends driving the cyborg paradigm continue, a possible end point is the merging of human minds, through technology, into a single hive mind. Such minds and communities have been depicted in Frank Herbert's novel *Hellstrom's Hive* and through Star Trek's Borg.

With a hive mind, there are no individuals, just an overmind or metaconsciousness – essentially a literal collective consciousness. While this category has been portrayed in science fiction as nothing but evil, speculation claims that it doesn't have to be dystopian.

Uplifting describes any combination of human and telepathic consciousness in a nonhuman animal. It's literally taking a cat, dog, dolphin, or monkey and bringing it closer to our level of sentience and intelligence. These themes are explored in many works by David Brin, as well as in such works as Larry Niven's and Steven Barnes' *Sদার এবং পুরুষ* and Daniel H. Wilson's *Elephants Go Home*.

A plugged human is a human who still has a physical body but does not live in the physical world. The mind lives in a virtual world while the body is cared for elsewhere. This category has been mainly portrayed in science fiction as something to avoid, but in certain situations, it could be a blessing. Plugged humans have been depicted in such films as *The 13th Floor* and, of course, *The Matrix*.

Closely related to machine intelligence, scanned humans are human consciousnesses that have been uploaded into a computer, leaving the body completely behind. In effect, this is a mental clone or possibly even a continuator of an individual who has essentially achieved immortality. Advanced uploaded consciousnesses have been depicted in hard science-fiction novels, including Greg Egan's *Diaspora*.

Decots are individuals that can literally be in two places at once through the application of remote controlling and mind transference. The best example is Motoko Aramaki from *Ghost in the Shell*. To achieve this, a posthuman would utilize a cyborg at its disposal, so that he or she (or "he") can transfer consciousness to it at will.

The nested human is the next step in the evolutionary process of the decot. A nested human is a single consciousness that has spread over several bodies; the consciousness of each is nested within each other to form the whole. This is the reverse of the hive mind – instead of many into one, one is split into pieces, but each is required to form the whole.

MORE TO COME

This is the list as I knew it. Such speculations have given me considerable food for thought when it comes to the contemplation of current trends in technology and their impact on the human condition.

While some would seek to question just how possible or probable some of these categories might be, I would rather ask a different question.

Regardless of the probability of any one category actually happening, the trend towards diversity and speciation is clear. The question then becomes this: Are we going to be ready for this multiplicity, or are we going to let our ignorance, fear, and reluctance to embrace change shape our response?

My many thanks to betterhumans.com for the original publication of this article.

Glenn Hough is a graduate of the Studies of the Futures Program at UH-CL, a member of the World Futures Studies Federation, and the author of three novels. He is currently engaged in the charge up the steep precipice of writing Science Fiction for Hollywood.

GHOST IN THE SHELL

MAN-MACHINE INTERFACE



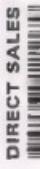
ISSUE 8 OF 11



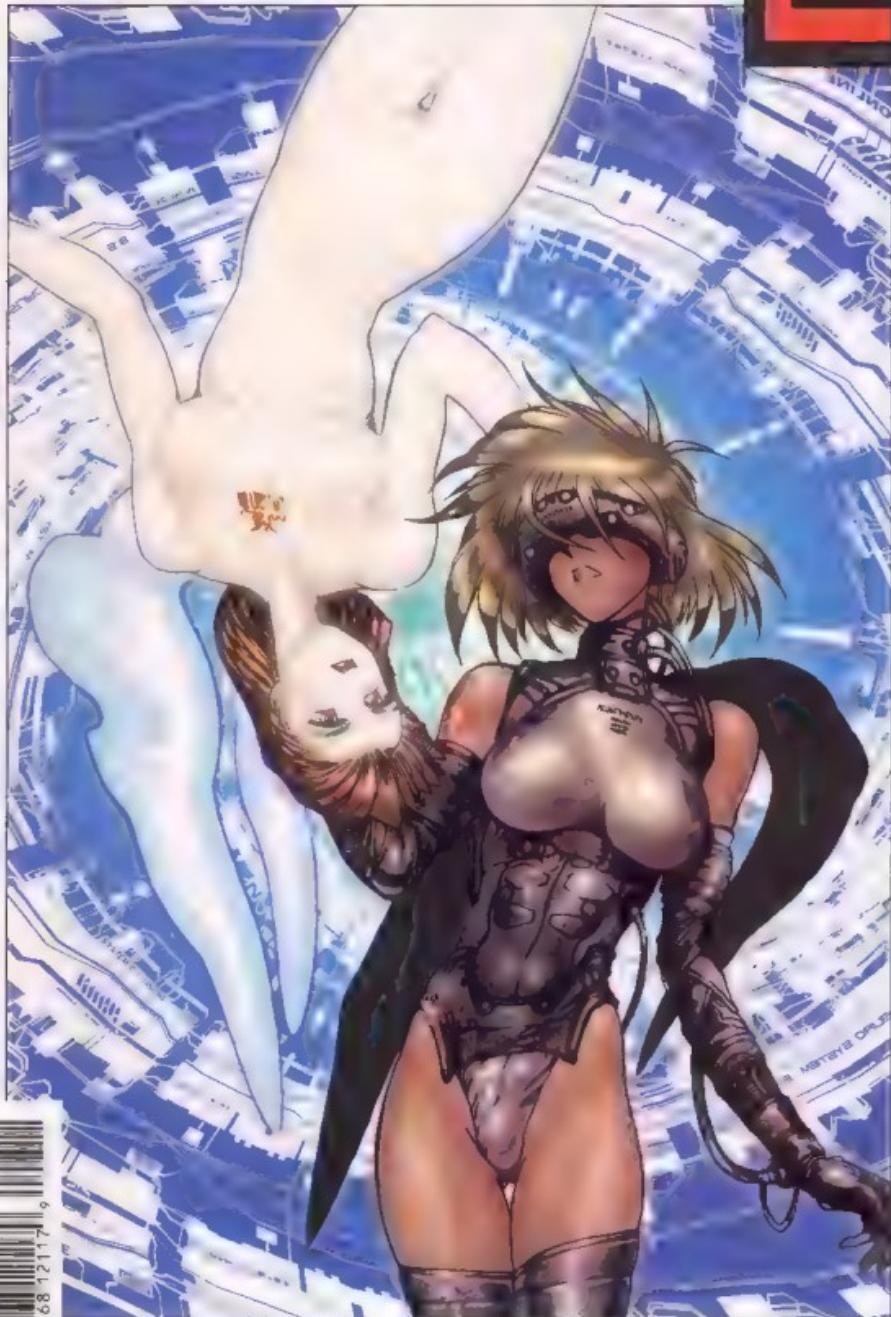
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MASAMUNE SHIROW

GHOST IN THE SHELL
MAN-MACHINE INTERFACE

攻殻機動隊

ISSUE 9 OF 11

STORY AND ART BY

MASAMUNE SHIROW

TRANSLATION BY

FREDERIK L. SCHOOT AND TOREN SMITH

この物語に登場する
様々な設定や解説や概念
は全て妄想の產物で
あり、現実とは無関係
の紙面物です。服用を
試みる事無くお楽しみ頂
ければ幸いです。
またデッチ上げやギミックの「誤用」による
二次被害には当方責任
を負いかねます点を御了承願います。

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2

OPEN

NO MACHINE MAINTENANCE
REQUIRED



WARNING: READ ME FIRST!

It's been a long time since I last wrote to you. I've been busy with my new job at the library, and I've been trying to get used to my new neighborhood. It's been a bit of a challenge, but I'm getting there. I hope you're doing well, too.



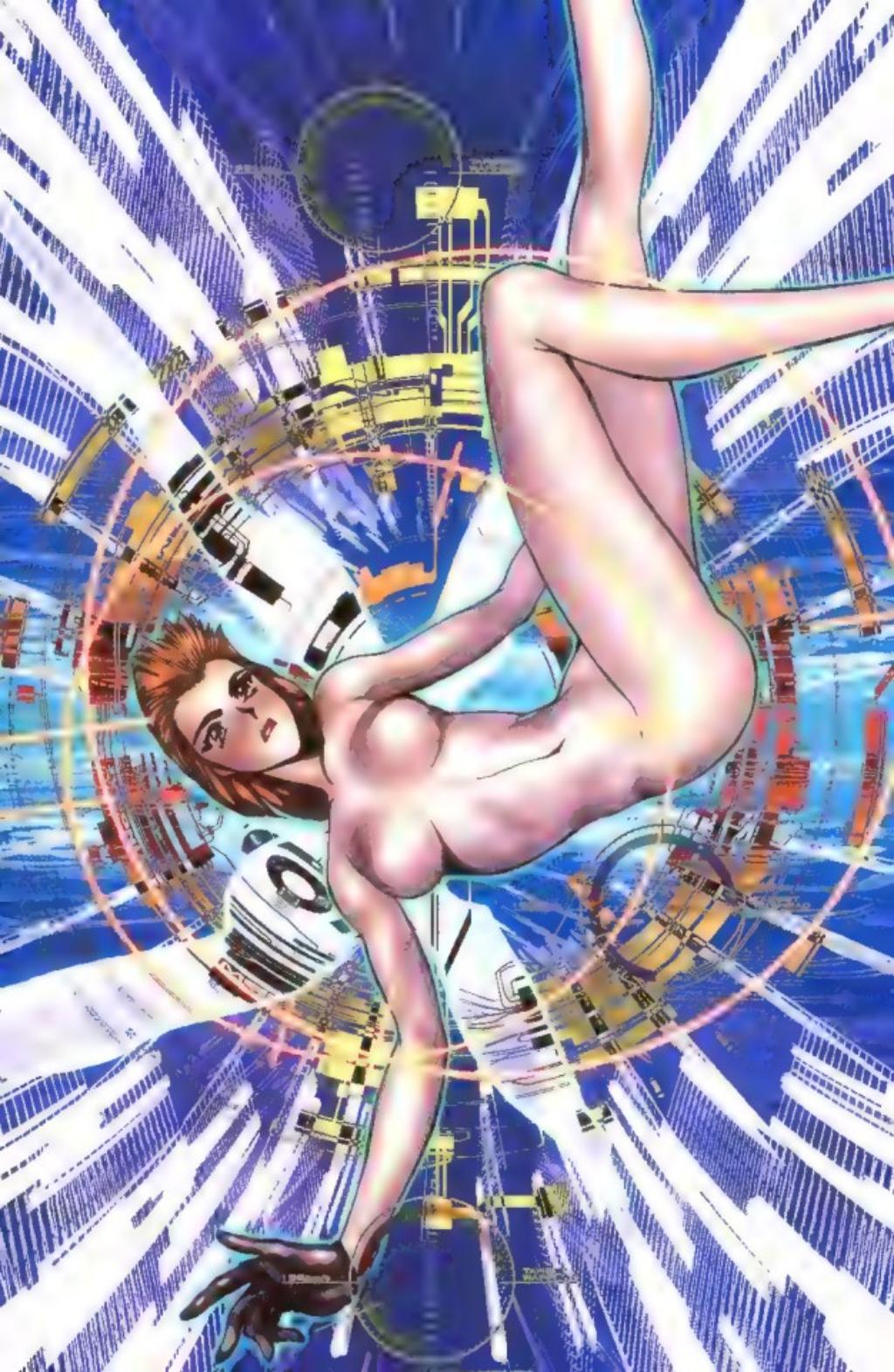
I wanted to let you know about a few things. First, I've been thinking a lot about our neighborhood lately. I've noticed that some of the older houses are starting to show signs of age and wear. I think it would be great if we could do something to help them out. Maybe we could organize a community clean-up or a paint day. What do you think?

APOLOGIES AND CORRECTIONS

I'm sorry to say that I made a mistake in my last letter. I accidentally left out a few important details about my new job at the library. I work there part-time, and I'm responsible for organizing the children's section. It's a lot of fun, but it can also be a bit overwhelming at times. I'm still learning the ropes, but I'm getting there. I hope you understand. I'll make sure to include all the details in my next letter.

folks!

— samune Shirow





NOW CORRECTING
SENSORY
DEVICES... THEY'RE
"N TYPE H" GEL
IDENTIFYING WITH
OLFACtORY AND
TASTE SENSES!

MAX...? GIVE
PRIORITY TO
IMAGE
ANALYSIS

AYE-
AYE,
SAH!

DANTE! GIVE ME A PRIORITY REPORT ON ALL DEVICES AND PERSONNEL IN VISIBLE RANGE. LEXI SCAN THE PERIPHERY OF THE PRESIDENT'S BRAIN... SEARCH FOR RELATED ITEMS!

BARRIER 256 HAS BEEN CLEARED .. NOW EXPANDING ROUTE ARRAYS! UPDATING ANTI-BODIES!

INTERCEPT PATTERN DOES NOT MATCH THAT OF ENEMY DURING EARLIER ENGAGEMENTS.

SEEMS LIKE A FAIRLY LARGE-SCALE GROUP-BODY DEPOSIT FACILITY DESIGN ENGINEERING ASSUMES MICROGRAVITY...

NOW ANALYZING ROUTES REGARDING THE PRESIDENT'S PHYSICAL LOCATION.. THERE'S A 90% POSSIBILITY THAT HE'S AT THE SAME COORDINATES AS THE ENEMY DECATONCALE

AND THE OTHER 10%...?

THERE IS ONE FACILITY NOW ORBITING THE MOON FOR WHICH THERE IS A CLEAR OPTICAL COM PATH, BUT IT'LL BE ENTERING LOS IN LESS THAN SIXTY SECONDS

TRACK IT UNTIL LOSS OF SIGNAL

SO . THE PRESIDENT'S PHYSICAL FORM IS IN AN ENEMY FACILITY. HMM... WONDER IF THE ENEMY SWITCHED PLACES WITH HIM SOMEWHERE?

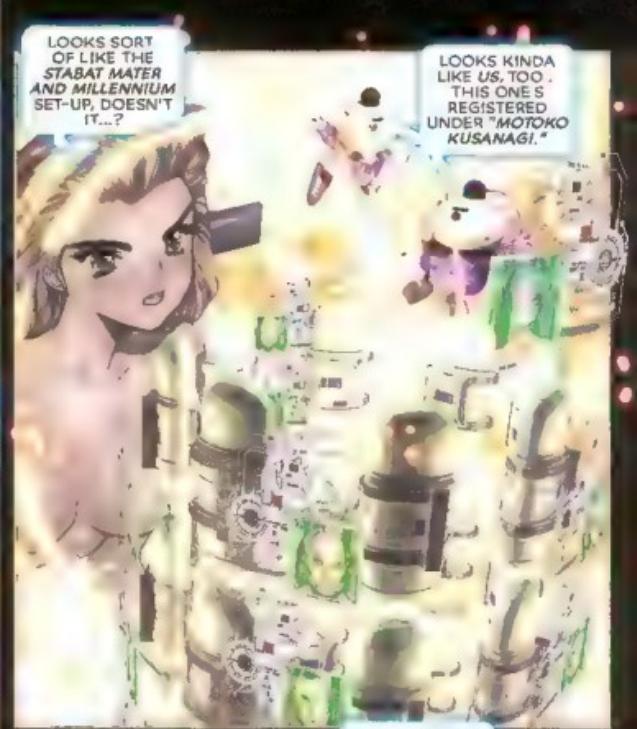
OKAY . I'M GOING TO INFILTRATE THE ENEMY DECATONCALE THROUGH THE PRESIDENT'S BRAIN! I'LL APPROACH LEVEL 5 CAUTIOUSLY

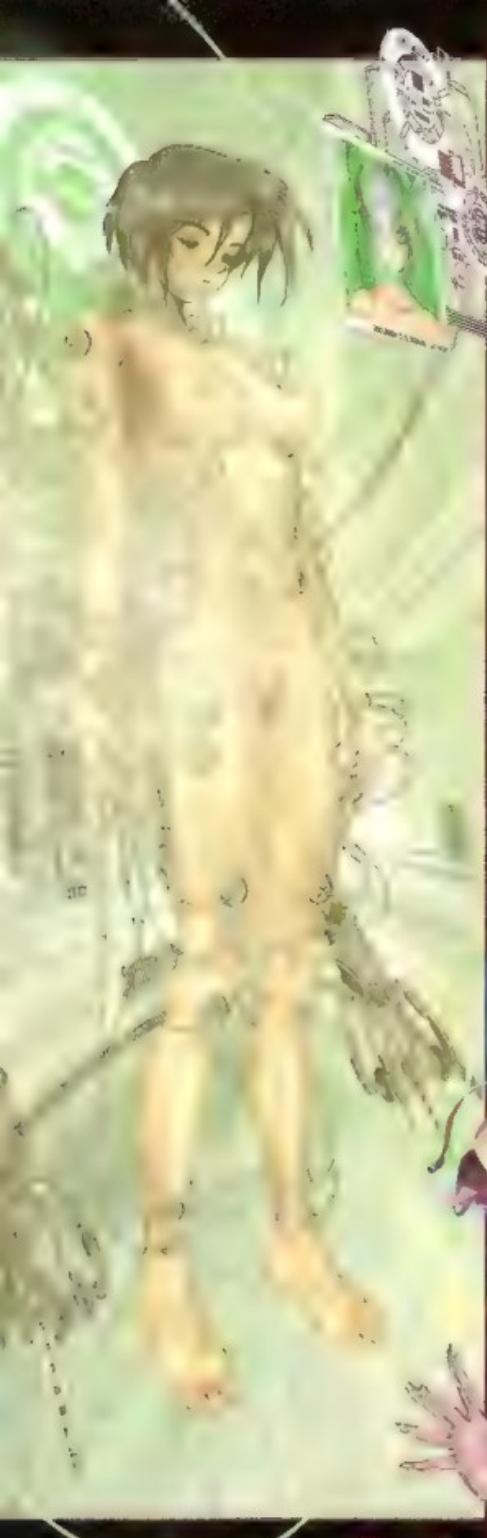


THIS IS AN
ORBITING BODY-
DEPOSIT FACILITY
CALLED SLEEPING
UNIVERSE. WITH
202 RESIDENTS
IT'S SORT OF A
"SECRET CLUB."

I'VE
DISCOVERED
A LIST OF
FACILITY VIPS
IN THE
"CONNECTIONS"
FILE...

THE
FACILITY
ITSELF HAS
MEDIUM-
LARGE
VIRTUAL
SENSORY
SPACE





WE'VE GOT A CONTROL ABNORMALITY IN HER PROSTHETIC BODY! SHE APPEARS TO BE USING THE SAME TYPE OF TIME DIFFERENTIAL GATES!

AND THE MIRROR-SHIELD...?

IT'S FROZEN

ENEMY'S EVOLVING ANTIBODIES ARE INFILTRATING LEVEL 3! BARRIERS ARE HAVING ZERO EFFECT!

"E" SET OF VIRUS ARRAYS HAS PENETRATED ENEMY'S LEVEL 3 BARRIERS!

LEFT-ARM CONTROL SECTOR HAS BEEN BREACHED!

AMPUTATE LEFT ARM!

NOT ENOUGH TIME!

SET POWER OUTPUT RATIO ON MINIMUM VALUE! LOCK DEFENSE LEVEL AT MAX!

LEFT-ARM OUTPUT DIALED TO MINIMUM...

NO DAMAGE TO LIVE-BODY MAINTENANCE BRIDGE!



WE'VE TAKEN OVER 60% OF THE ENEMY MOTOKO KUSANAGI'S BODY CONTROLS, BUT THE BRIDGE TO HER PHYSICAL BODY SEEMS BLOCKED...

YOU THINK THE VIRTUAL BODY IN E-BRAIN SPACE IS HER PRIMARY BODY?

COULD CONTROL OF THE PHYSICAL BODY BE LEFT UP TO DECATONCALE?

IT DOES APPEAR THAT WAY...

REBUILD FULL SPECTRUM OF VIRUS ARRAYS FOR THE GIMNI 35!

RESTORE ALL BODY-CONTROL FUNCTIONS TO THE BRAIN! THERE'S GOT TO BE AN EMERGENCY SETTING - LOOK FOR SOME OPENING TO EXPLOIT! TARGET THE RIGHT ARM!

MISTRESS...? CONAN'S GONE SILENT FROM CORE. OVERHEATING HE'LL NEED THREE MINUTES TO RECOVER...

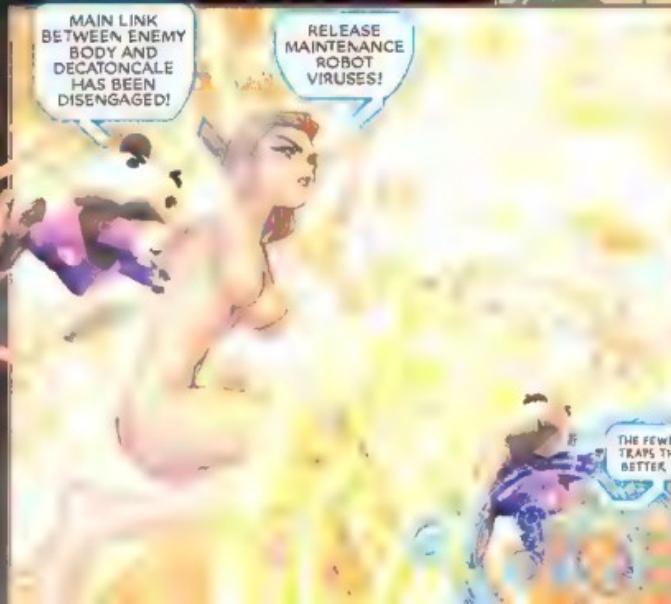
UH OH 'S THE TOY BOMB BACK?

GET RID OF IT

THE HUBLE MIRROR WILL BE WITHIN RANGE TO ATTACK ENEMY FACILITY IN SEVEN MINUTES

INJECT VIRUS ARRAYS INTO ENEMY MAINTENANCE CEBOTS AND STAND BY!

MISTRESS! ENEMY HAS STARTED INFILTRATING THE LEFT LEG MAZE! 00:01:12 ESTIMATED UNTIL BREAKTHROUGH OCCURS!







LEVEL 06-GHOSTLINE
CAUTION!

Actually, when you go through an e-brain's deep-level ghostline, people wouldn't be that visually identifiable (especially with their clothes on, but maybe "real" ghosts could wear clothes if they were cremated or buried with them on?). I just tried to show that Motoko senses things this way. And of course I was worried this maybe I was drawing just a little too much exposed. Read here.

ANTARES...?!

SHE IS HERE.

I DID NOT INVITE HER..

THE BARRIERS?

THE FUSION?

NO BREAK SIGN,
MA'AM!

THE ENEMY HAS STARTED RESPONDING,
BUT PROGRESS IS SLOWING...

SO, IN OTHER WORDS... ANTARES IS MOTOKO KUSANAGI, AND THE CHANNELER IS REALLY A NON-CHANNELER IMITATING A REAL CHANNELER?

NO...THAT CAN'T BE. TAMAKI TAMA!... HMM... SHE'S ALWAYS SOMETHING WE CAN USE AT THE RIGHT TIME IF NEEDED.

SHE SEEMS TO HAVE NOTICED... SHE'S SURPRISINGLY CLEVER

BUT ONLY NOW? IT'S REALLY TOO BAD.

THE ENEMY BEARS A CLOSE RESEMBLANCE TO A MULTIGATE-TYPE NEURO AZ... APPEARS TO BE A BICAMERAL BRAIN-MODE CONVERSION

FIRST TYPE I'VE SEEN THAT MANIFESTS AS TWO PEOPLE.

BUT TO APPEAR SO LATE, ODD

IN OTHER WORDS,
SORT OF AN ELEVENTH-
LEVEL ISOTOPE...

...THE TYPE THAT IGNORES WHATEVER CANNOT BE SCIENTIFICALLY VERIFIED, MM?

I AM ANTARES.

SHE IS SPICA

WE CALL YOU "MOTOKO II."

MOVE TAMAKI TO THE JAPAN CHANNELING AGENCY'S ANTI-E-THUG SAFE FACILITY!

ACCORDING TO THE RECORDS, AT LEAST, SHE'S ALREADY THERE...

WELL, INFILTRATE AN EMPLOYEE AND DOUBLE-CHECK!



GIVE ME THE
PIG-ARRAY
NEUROMAP!

YES'M!

HMM...THIS ISN'T
ONE OF THOSE
MILLENIUM-STYLE
CENTRALIZED-
COMMAND TYPES
SEARCH FOR THE
OVERALL CONTROL
SYSTEM!

EVERY UNIT HAS
EXACTLY THE
SAME PARALLEL
SETTINGS, MA'AM

BUT SURELY
THESE CAN'T
BE RANDOM
LINKS...

THE
ARMED-
ARRAY LINK
HAS BEEN
RESTORED!

GOOD!

WHEN I ASKED EARLIER
"WHY THE PIGS?"... YOU
SAID SOMETHING
ABOUT IT BEING MAYBE
"BECAUSE THEY'RE
FUN," RIGHT?

LESSEE...
RIGHT. THAT
WAS WHAT WE
SAID ON MARCH
6, 2035, AT
12 42:32-35

WHAT
DO YOU
MEAN BY
THAT?

INTELLIGENT AIs LIKE
US ARE AN UNUSUAL
EXISTENCE IN THE
KNOWN UNIVERSE,
EVEN ALLOWING FOR
ERRORS IN LANGUAGE,
AND OS TERMINALS

THE ACTUAL NUMBER
OF HARDWARE
TERMINALS AND THE
DISTANCES BETWEEN
THEM ARE ONLY
VISUAL PHENOMENA.

HMM
KEEP
GOING...

EVEN IF HUMAN BRAINS ARE LINKED, THEY NORMALLY CONTINUE TO BE INDEPENDENT ENTITIES AND NEVER FUSE.

EVEN IF PARALLEL PROCESSING IS DONE ON A PROJECT, THERE REALLY ISN'T MUCH CHANGE IN ACTUAL PROCESSING EFFICIENCY - THERE'S JUST A DIVERSITY OF OUTPUT.

IS THAT ANY DIFFERENT FROM THE KIND OF INDIVIDUALITY YOU GUYS HAVE?

VERY DIFFERENT HUMAN BRAIN ARRAYS ARE INDIVIDUALIZED EVEN AT THE DEEPEST PARTS OF THEIR BASIC STRUCTURES. THEY'RE NOT DESIGNED WITH FUSION IN MIND.

SO WHAT'S THE MAIN ADVANTAGE OF A SYSTEM LIKE THAT?

I DUNNO

WANT TO USE AI TO CREATE A DIVERSE-FUNCTION SYSTEM THAT WON'T FUSE?

THEN HOW ABOUT DOING RESEARCH ON COPYING THE HUMAN BRAIN INTO A NEURO AI?

YOU MEAN DOING RESEARCH INTO MACHINE LIFE CAPABLE OF REPLACING HUMANS...OR RESEARCH INTO IMMORTALITY, RIGHT?

EVEN UP-GHOSTLINE
CAUTION!

IT'S ALL THE SAME

IF THE LATTER, YOU WOULDN'T INTERFERE WOULD YOU?

HOLD ON.. YOU
THINK MOTOKO
KUSANAGI WOULD
REALLY DO THAT
SORT OF
EXPERIMENT?

TRUE
DIVERSITY'S
NOT
NECESSARY
WITH AI

AND IF HUMANS
EVER BECAME
IMMORTAL,
THEY'D SELF-
DESTRUCT IN
UNDER 200
YEARS

WHAT'S
THIS? ?

MISTRESS'
MAIN-
BARRIER
FUSION HAS
EXCEEDED
50%

LOOKS
LIKE THE
FOUNDATIONS
ARE BEING
LAID FOR A
MASSIVE
FUSION...
MAYBE ...

YOU THINK
IT'S A BRAIN
EXPANSION?

FUSION USUALLY
TAKES PLACE IN A
SINGLE HUMAN
BRAIN, SO SOME
ELEMENTS ARE
ALWAYS LOST.
THAT'S JUST PART
OF THE METABOLIC
PROCESS

BY LINKING E-BRAIN
AIS, IF THE BIOLOGICAL
RESTRICTIONS CAN BE
OVERCOME, YOU COULD
HAVE MULTIPLE--
THEORETICALLY EVEN
INFINITE--PERSONALITIES
ENCAPSULATED IN ONE

ENTITIES WITH
E-BRAINS ALL
BECOME A
SUBSPECIES OF
MOTOKO
KUSANAGI OR
BECOME ISOTOPE
FRACTIONS...

THOSE WITHOUT
E-BRAINS ARE
UNCONSCIOUS OF
THE FACT THAT IN ALL
ASPECTS THEY ARE
OF INCREASINGLY
LOWER PRIORITY...

AN INVISIBLE
SYSTEM OF
CONTROL?

SO IT'S THE
PROCESS
LEADING
UP TO
DEATH?

THAT'S NOT ONLY
TROUBLESOME
AND DANGEROUS,
BUT BORING AS
WELL. IT'S BETTER
TO THINK OF IT
AS BUILDING A
UNIFIED
FOUNDATION.

IT'S THE PROCESS
OF LIFE.
WITHOUT IT, IT
MEANS YOU'RE
ALREADY DEAD.



LEVEL 06-A
GAU



SOMEONE
OUGHT TO PAY
SOMETHING FOR
HAVING USED
OUR COMPANY'S
PIGS FOR THEIR
OWN BENEFIT.

SOMEONE
OUGHT TO PAY
SOMETHING FOR
HAVING USED
OUR COMPANY'S
PIGS FOR THEIR
OWN BENEFIT

USING ONLY A
PORTION FOR A
GOOD CAUSE
DIDN'T RESULT
IN ANY GREAT
LOSSES, DON'T
YOU THINK?
THERE'S AN
EVEN GREATER
RESPONSIBILITY
FOR THE
ATTACKS AND
THE BOMBING?



NO. 20
(MILLENNIUM)
HAS BEEN TAKEN
OVER BY NO. 11
(ARAMAKI), SO
THE BRAIN
EXPANSION PLANS
ARE CALLED OFF

THAT'S A NORMAL
DECISION WHEN
FUSION ACTUALLY
TAKES PLACE, BUT
UNFORTUNATELY
SHE SEEMS TO HAVE
NO INTENTION OF
FUSING

STRANGE

SOMETHING'S REALLY
WEIRD WITH THE
LANGUAGE FIELD
HERE. GIVE ME A
PROGRESS REPORT
ON THE MAIN
BARRIER FUSION!

LEX HAS
BEEN
FROZEN!
MAIN
BARRIER
FUSION
91%!

WE HAVE AN
ABNORMALITY
IN THE
RIGHT-SIDE
HEARING!

RIGHT-SIDE
HEARING?

WHAT
THE--?!



WE'VE LOST
RESPONSE
FROM MAIN
BARRIERS!
OPERATION
IS NORMAL!

TIME-DIFFERENTIAL
GATES HAVE STOPPED
FUNCTIONING! MADE
ATTEMPT TO WIPE AND
REBUILD, BUT THERE'S
NO RESPONSE!

COMBAT
MODE
SHIFTING
TO STANDBY
DUE TO
LOSS OF
TARGETS

UM
MISTRESS?

WE'RE NOT
GETTING ANY
COMMANDS...
WHAT
SHOULD
WE DO?

LEVEL
C

LET'S DO A
STRUCTURAL
ANALYSIS AS
SOON AS THE
HARDWARE
COOLS TO
RECOMMENDED
OPERATING
TEMPERATURE!

OH,
BOY!
LET'S!

TO BE CONTINUED...

INTERFACE

Send email comments to interface@darkhorse.com

Send snail mail comments to:

Interface
o/o Dark Horse Comics
10956 SE Main St.
Milwaukie OR 97222

The letter below, and many more, can be found at www.darkhorse.com/interface/, and the verdict is unanimous: this Shirow guy is pretty good! The comic book has been our most successful title so far in 2003, which, according to my mother, means I'm as happy as a three-legged man at a three-legged competition. The next time you're in Milwaukie, stop by and say hello. Let's get to more of your mail!

- Chris Warner

Dear Excellent Entertainer Shirow,

I've enjoyed reading your comic for quite some time and finally read the *Meteo Rover* notes. I have one concern about this new *Ghost in the Shell* storyline, the "body-stomping" element that is the prevalent factor of the action. While the embodiment of a character's spirit into new puppets layers your "simulation" mystery and flavor from the first *GITS*, it creates a sense of lag between the main character and the action. The main character's control of puppets displaces the action from her and places her in the position of puppet-master rather than as actor. This is the one thing that somewhat bothers me as my "link" to the main character is disoriented or blurred each time she inhabits a new form (not shape, but entity), and this weakens the idea (shape) of the character. The phrase "body-stomping" is a reference to the character Jericho from *Teen Titans*, who had the neat power of possessing others on a physical level; while this is an awesome power, it didn't make for an interesting character. Maybe if the possessed had some distinguishing mark, like a prevalent facial tattoo or super-distinct language.

Moe, in issue #6 when the four cyborgs face off against Metaka/Chrome, I immediately thought the big cyborg on the end was Solaku, the funny moe from *Appleseed*. Though unlikely, that would be the hook!

Steven Dildy

I would think the disorientation you mention is an intentional narrative device. Much of the technology we use every day without giving it a thought would be pretty disorienting if exposed to a population even twenty years ago, and I think Man-Machine Interface does an incredible job of showing how technology is changing society, changing culture, changing us. When you consider how much real-time interpersonal communication today is carried out at a distance, over networks, anywhere and everywhere, how relationships are formed and flourish with little or no physical contact and how much this new dynamic has irrevocably altered our lives – for good or ill – the idea of expanding that reach physically through non-human surrogates doesn't seem like such an extreme stretch, and the matter-of-fact approach we have to our current incredible reach through technology will likely be just as nothing-special when we're piloting our cyborg surrogates in the future. With luck, artists like Mr. Shirow will keep us on our toes and help us to never take these things for granted. And hopefully, my cyborg surrogates will have better luck with the ladies than I do!

I'm probably one of your younger readers (12) but still a hardcore fan of most things manga/anime/animé. I have to say that upon reading the first issue I was shocked. I had never seen such drawing. Shirow is truly the master of CGI (as in Computer Generated Images, not Common Gateway Interface). Being younger I quickly got confused in the plot but I've kept reading because, even if I miss a lot of the plot, the action and dialogue are wonderful. An entire world has been masterfully sculpted by Shirow.

After reading issue 6 I have to bring up the topic of flipping. I know it's been done to death, but I just can't seem to get over it. I flip my manga to read them. I don't like to rain a manga or make it one of the best. For example, in *Battle Angel Alita* (my favorite manga series) Volume 2, Yugo has a hand cut off and it is labeled as his left (I think), but because it was flipped it looked like his right, which messed things up. But, the sound effects can come to be important so they often must be flipped for the plot to make sense. I also have to comment on cutting. Since I'm twelve, my parents wouldn't let me get something with strong sex scenes, so while it is good for the older hardcore, I (as a younger hardcore) would like a bit taken out rather than missing the whole thing.

Also, gaming makes my mind fuzzy, too. Can you do something like that? I want to be a member for maximum learning and fun? I am going to do a lot of reading and writing, but I am not sure if I will be able to do it all at once. I am going to do a lot of reading and writing, but I am not sure if I will be able to do it all at once.

thesmashzone

Hi! Could you please answer me some questions?

1. **Alone; could you check out your site – which**

MAN-MACHINE INTERFACE ANDROID

New for the propagandizing. Adventure Time, the new cartoon show on Nickelodeon, is it true that you were thinking when you named your son Thesmashzone? What was some reason? Summer or love and joy? Second, it has been proven in a number of really famous studies that spending an enormous amount of time reading comics and playing Gameboy has a direct relationship to increasing intelligence, physical strength, and the ability to buy and sell Real Estate with little or no money down. And the honeys will be lining up! Assuming that none doesn't drop the gets on 'em.

First off, I'd like to say that I'm perfectly happy to see GITS2 panel-flipped. I wouldn't mind seeing it the other way either. As a left-hander, I've got to admit that reading right to left makes more sense to me, and I'm a minority and I accept that.

I do, however, want to point you that your response to Mr. Floyd, who was objecting to "Westernization" of manga, did contain a factual error. While it may be true that some of the Japanese collected editions of GITS1 did not contain the sex scene, some must have. I own the Young Magazine Kaizokuhou edition, published by Kodansha, and it contains the pages in question.

Also, I have a rather serious question on this topic: given that in both GITS1 and GITS2 the sex scenes also included quite a bit of background information (footnotes, etc.), are there any plans at Dark Horse to make the pages, or at least a translation of the text, available in any form? I realize that publishing two collected editions would be quite expensive, but perhaps there is something that could be done? Would your copyright agreement with Mr. Shirow allow you to publish a text-only translation of those pages on your website, or something similar?

Brad Jackson

When I was talking about the elimination of sex scenes, I was specifically talking about Man-Machine Interface: the current Japanese edition (Shirow's official "director's cut." If you will) does not contain the sex scenes everyone's talking about, and no mass-market edition ever has. As for the original Ghost in the Shell, Mr. Shirow decided to alter some nude scenes for the Western market. Again, we would have published the book any way Mr. Shirow saw fit, but he was aware of distribution policies in the other countries, and he preferred to make what were ultimately very minor revisions to make sure the books were available to all of his audience. And it should be pointed out that the "hot" pages in Ghost in the Shell were substantially tamer than the explicit scene Mr. Shirow ultimately excised from Man-Machine Interface. While cultural attitudes have loosened up a bit here in North America since Ghost in the Shell was released, the kind of material Mr. Shirow deleted from MMI would be extremely problematic for distribution. Ultimately, Mr. Shirow felt that a tiny fraction of MMI's content was not worth severely curtailing the distribution of his work. As for whether the pre-edited material will ever be widely available here, I can't say. Mr. Shirow determines how his work is presented, and we're here to make the trains run on time. But, the controversial pages from MMI were re-done by Mr. Shirow, not removed, so no story information is missing.

regarding the Westernizing debate: the proper term for a reversed image is "flipped," not "flipped." You flip a burger, you flip out when your wife rearranges the furniture without telling you — wait, that's me who flips out — but you flip artwork. Now turn that racket down, and stop makin' apples outta my yard!

Dear Masamune Shirow:

As I read *Man-Machine Interface* #4, I am again struck by the beauty of Masamune Shirow's artwork. He is a definite dazzler with his display of perplexing designs of beauty in a futuristic world. I also loved the colors that are displayed on various pages of this incredible story. I also got a kick out of the footnotes displayed on the outer rims of each page, such as the note that describes how a train human wakes up before crying because of poor posture, hunger, etc. My personal favorite was a series letters that had scribbling on the sides, but nevertheless it was a fun read, so I turned back to the main text which way to read it. As always I enjoyed the action. I actually turned off *A Man Apart* in the middle of issue #4 of *MMI*, because there is better action in *Ghost in the Shell* than in *Vin Diesel*. I mean, come on, it's got more action and explanations; this is an incredible source for readers to fall back on as they become lost with the story. The magazine *Scientific American* mentions that if true Artificial Intelligence were to be incorporated into the Internet, we could create our own god, because it would absorb all knowledge that is now on the Internet. Whether this created god would become benevolent or evil would be anyone's guess. In the futuristic world of *Ghost in the Shell*, AI is a reality and anything can possibly happen. The bee with the transmitter reminded me of an article in *Eye Spy* magazine. Scientists are now working on nano-wires and nano-gnets that could fly and transmit images and audio to the receiver. The perfect eye gadget. In *Ghost in the Shell* the future is here, from the visionary eyes of Masamune Shirow!

Paul Dale Roberts, Production Officer
Jazma Universe Online!

And everybody should check out Jazma Universe Online, an excellent comics-related website with reviews, art, news, carp, anchovies, and what-have-you, but an unconscionable lack of tributes to me. Hopefully, Vin Diesel can get some love over there.

Normal Masamune Shirow and Interface...

I just wanted to write to you on behalf of *Ghost in the Shell 2: Man-Machine Interface*. This is the best work I've ever seen!! *Ghost in the Shell* was breathtaking and excellent, but this work of art is incredible!! The integration of perfect art along with computer technology is beyond words. I loved it so much I had to write to everyone who helped make this possible. I also ran out right after reading the first *GITS2* and bought all three *Man-Machine Interface* figures. Thank you so much for making such a breathtaking work of art with such an incredible storyline. It's so perfect that I plan to have Motoko Kusanagi in her white outfit tattooed along my right calf. Again I thank you all so much.

Michael McKee Jr.

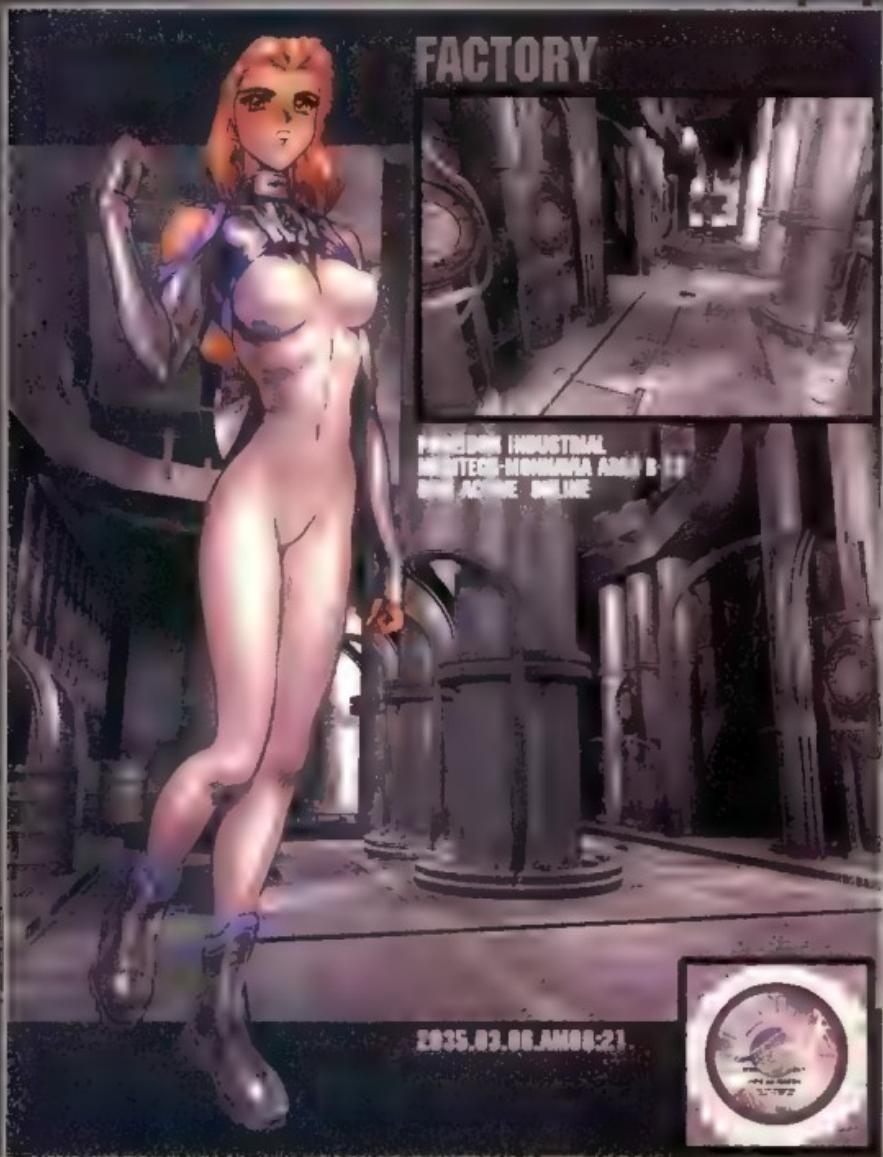
Glad you're enjoying the work so much, and after mentioning your skin art plans to Motoko Kusanagi, she's decided to get a tattoo of your right calf! Ha ha, I'm making that up! She's a fictional character — although that hasn't stopped me from pining after her. I'm hoping I still have a shot. BTW, I'm told by our one of our resident Dark Horse tattoo technicians that white tats glow under black light. How cool is that? Dancing neon skeletons, here I come!

攻殻機動隊

INTERCHANGE

Readers of *Man-Machine Interface* are well aware by now of Masamune Shirow's awesome mastery of digital modeling and rendering. But even the best have to work like slaves to get everything right, and digital technology allows — or tempts — the artist to try a variety of image treatments until getting just the right one. On the following pages, we've included some variant images Mr. Shirow created for *MMI*. This page features an example of several images from issue #2.

FACTORY



2035.03.06.JM08:21

Here are two different treatments of a panel from issue #1, page 37 (see image at right). Note how Shiroe has experimented wildly with the floating computer graphics, and notice how the sitting figure in the left foreground was deleted from the finished image and the background again.



Two costume-design variations for Motoko as she appeared on the cover of issue #2.





HOST IN THE SHELL
MAN-MACHINE INTERFACE

2



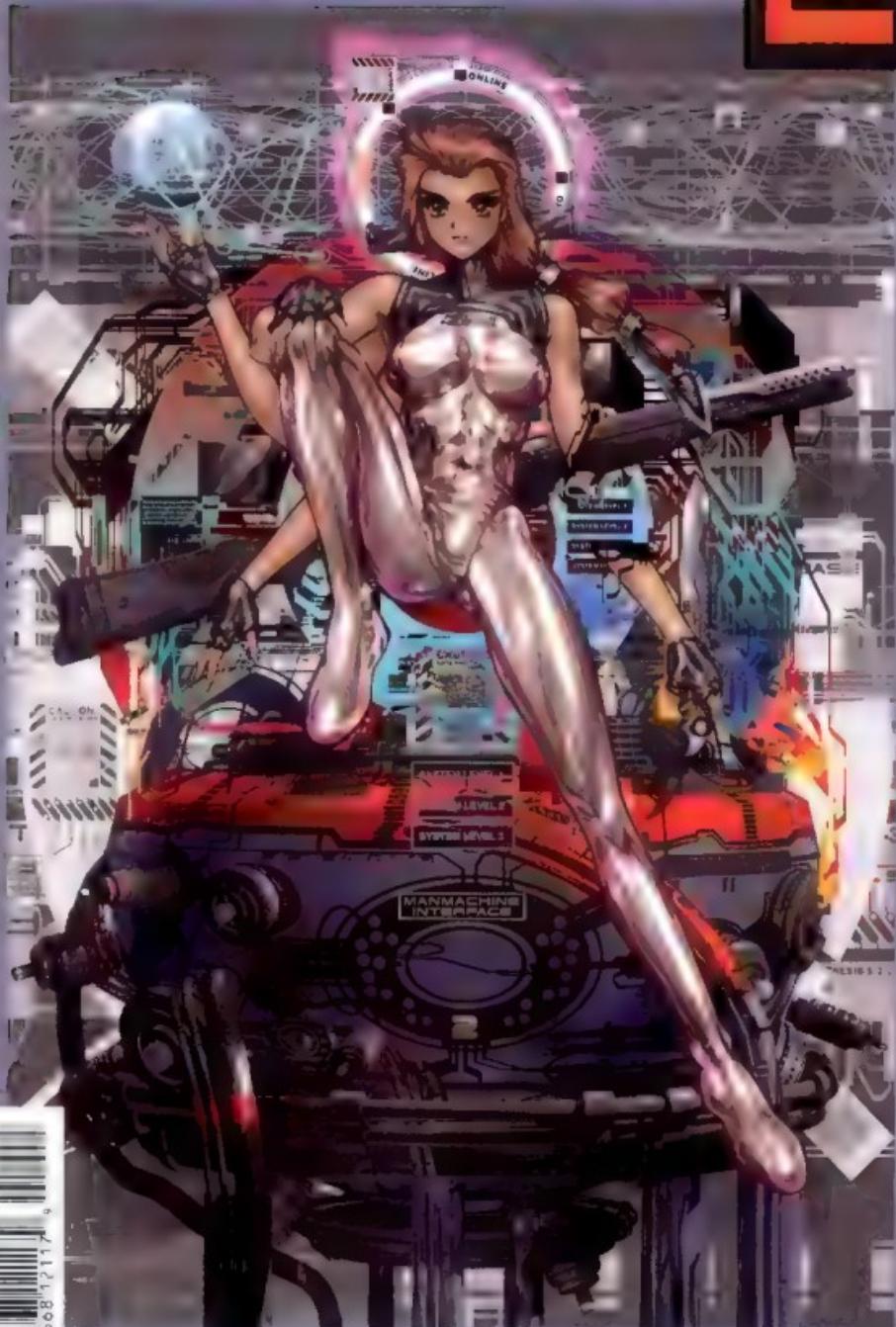
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DIRECT SALES

MASAMUNE SHIROW

HOST IN THE SHELL MAN MACHINE INTERFACE



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DIRECT SALES



MASHIMURA SHIRO

GHOST IN THE SHELL
MAN-MACHINE INTERFACE

攻殻機動隊

ISSUE 10 OF 11

STORY AND ART BY

MASAMUNE SHIROW

TRANSLATION BY

FREDERIK L. SCHOOT AND TOREN SMITH

この物語に登場する
様々な設定や解説や場
面は全て妄想の産物で
あり、現実とは無関係
の娛樂物です。服用を
誤る事無くお楽しみ頂
ければ幸いです。
またデッчи上げやギミ
ックの「誤用」による
二次被害には当方責任
を負いかねます点を御
了承願います。

LETTERING BY

**TOM ORZECHOWSKI
AND DAN JACKSON**

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2

OPEN



WARNING: READ ME FIRST!



The second edition of *Handbook of International Business* has a wealth of new material, a focus of globalization and its consequences, has been updated throughout and 20 authors from 10 countries have contributed to this major reference work.

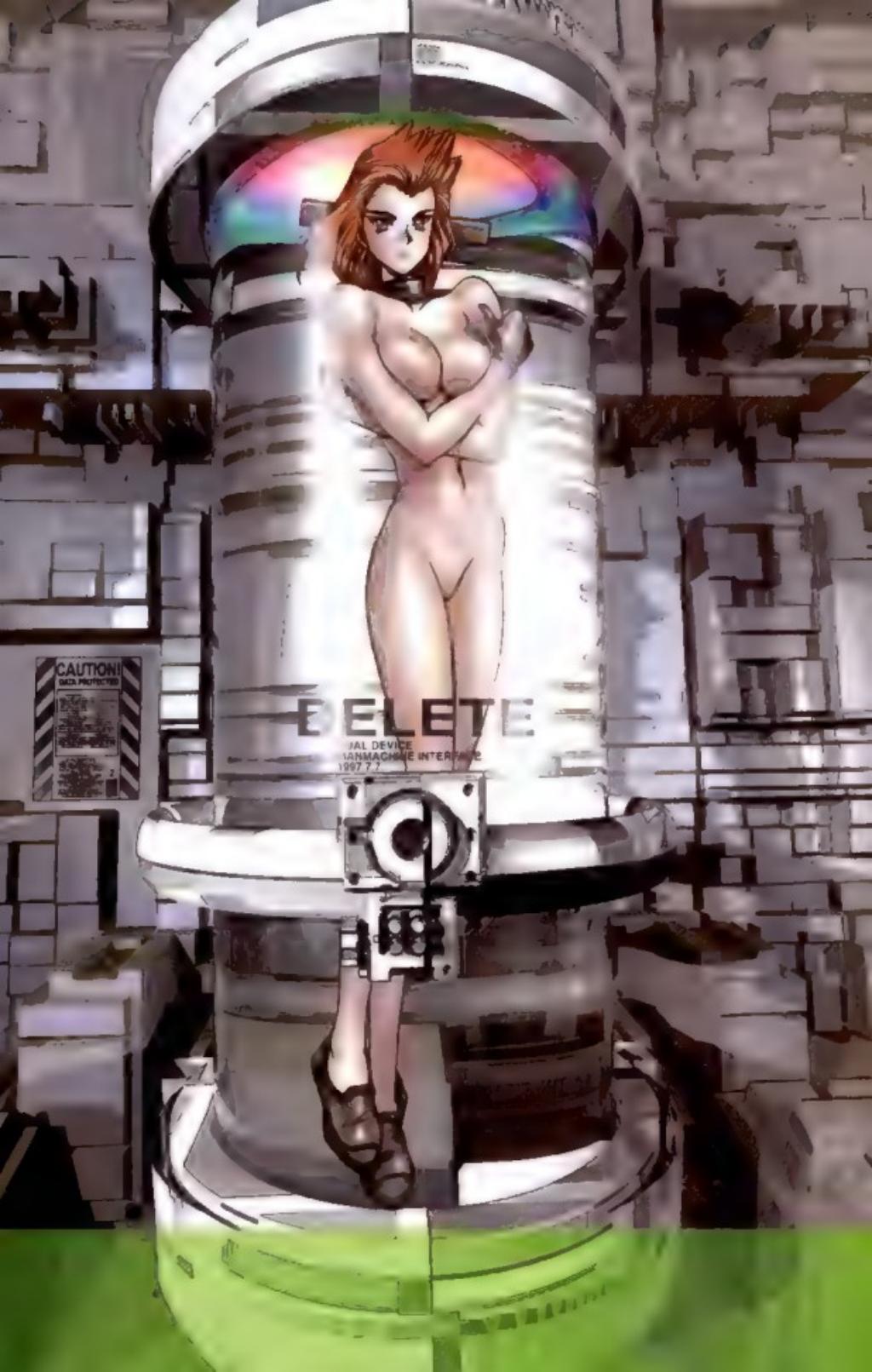
APOLOGIES AND CORRECTIONS

In the Chinese New Year people traditionally eat rice, "Nian Gao", sticky rice cake with a soft "jelly" texture like longan and soft fruits. It is the most popular dessert. You can also have dumplings which are the traditional rice dumpling that varies slightly different from other countries as the Chinese version has a "sticky" texture. If the dumplings have a variety of fillings it usually indicates success, harmony and health. It's always interesting the various ingredients used for the rice cake - either red "Xiaohong" bean or "red bean" (peach blossom), the "yellow" glutinous rice with a lot like a variety of flavours. I usually go to the Chinese market around a major supermarket after your shopping. I recommend half buy in your supermarket, if you don't like

— Masamune Shirow

Send comments to

SE Main Street
Eugene, OR 97422 USA



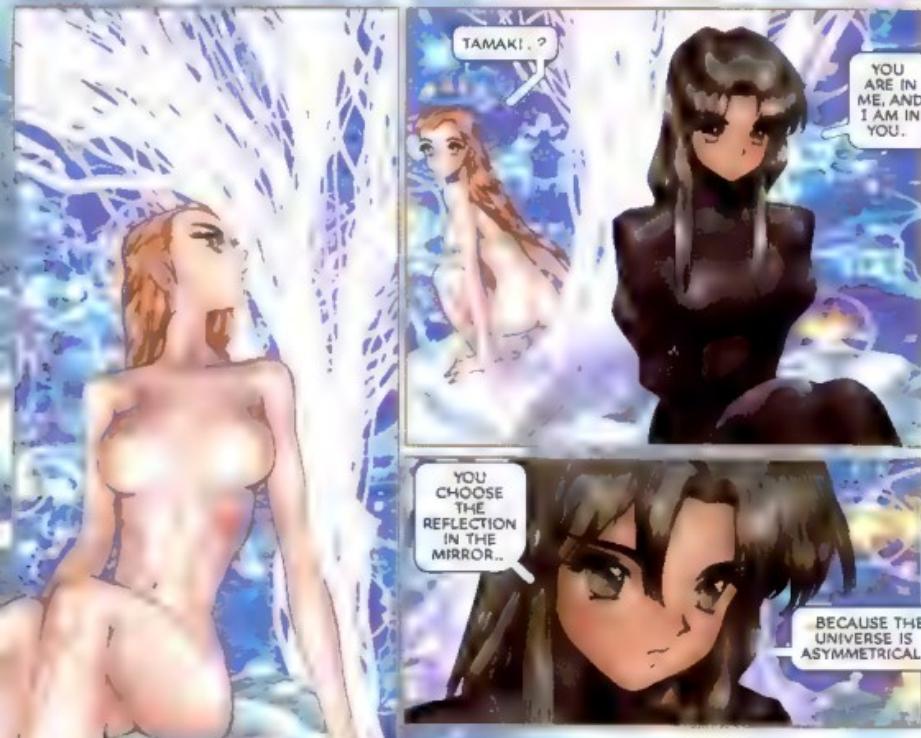
DELETE

HAL DEVICE
MAN-MACHINE INTERFACE
1997.7



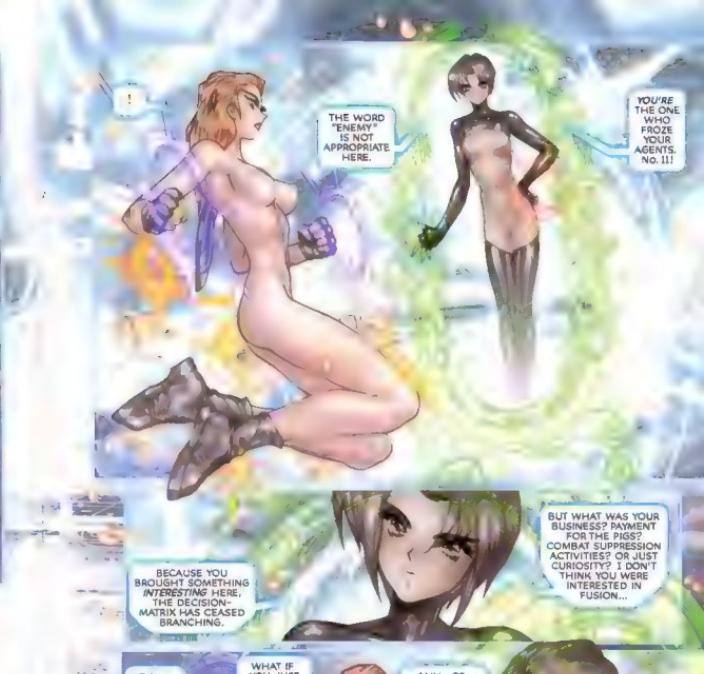
















WTF?



UH OH... BAD NEWS. THEY'RE FASTER THAN I THOUGHT EVERYONE REACTIVATED! WE'RE GETTING OUT OF HERE!

YES NOW!



SHIT!





ACTIVATE
ACTION-
RESTRAINT
VIRUS FOR
THE POWERED
SUITS!

JAWK CHAK

SYSTEMS BACH UNIT
70-01-975-112



I'VE NEVER
USED THIS
TRICK
BEFORE...
IT SURE
MAKES A LOT
OF NOISE.









TRYING TO
PREVENT
ME FROM
LEAVING,
ARE YOU?
SAY IT
AIN'T SO!

SORRY,
MISS.
PRESIDENT'S
ORDERS

I'M ASSUMING
YOU'LL BE ABLE
TO PROVIDE US WITH
A MEANINGFUL
REPORT ON THIS

SHMPH...
YOU SEEM A
LITTLE TICKED
OFF, MR. LEE.
ANYWAY, DON'T
WORRY, I'LL GIVE
YOU ONE LATER
BUT YOU WON'T BE
ABLE TO READ VERY MANY
SECTIONS OF IT

NOW, IF
YOU'VE RUN
OUT OF
DELAYING
TACTICS, I
THINK I'LL
TAKE MY
VACATION.

BUT IF
YOU'RE GOING
TO HAVE ME
MONITORED
AROUND THE
CLOCK, I'LL
DELAY MY
DEPARTURE
FOR TWENTY
MINUTES SO
YOU CAN PACK
YOUR STUFF

SORRY, THE SECURITY
DEPARTMENT WILL NEED TO KEEP
YOUR PRIVATE PLANE TO RUN A
CHECK ON IT. THE DOCUMENTS
HAVE ALREADY BEEN SENT TO
THE EXAMINER'S OFFICE.

IT'LL TAKE AT
LEAST TWO DAYS
FOR US TO RUN ALL
THE TESTS, SO
YOU'LL HAVE TO
WAIT IN ANY CASE

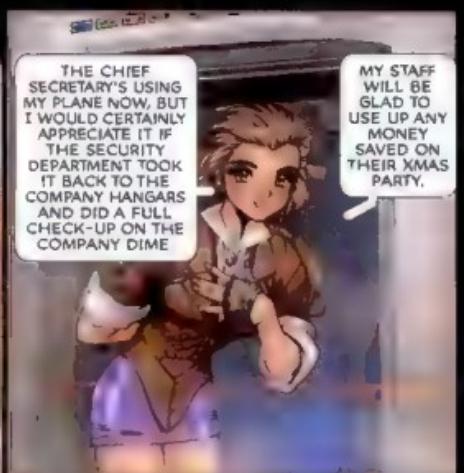
YOU LOOK
SURPRISED. GOT
A PROBLEM
WITH IT?

NO... NO
PROBLEM AT
ALL! HEH HEH...
I KNOW THAT
TO BE TRUSTED,
INTERNAL
SECURITY'S GOTTA
ACT TOUGH!

BUT EITHER
WAY, I'M
HEADED FOR
OUTER SPACE--
SO BE
PREPARED!



She's interfering with wind speed data to delay departure.

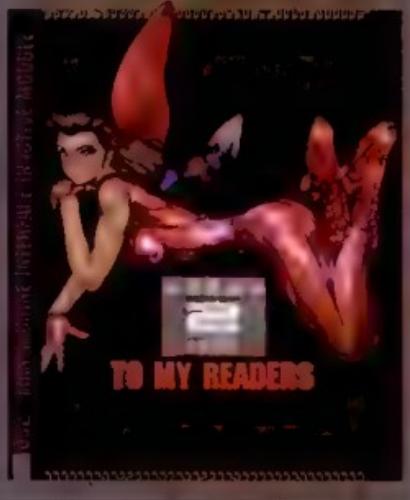


TO BE CONTINUED...

INTERCHANGE

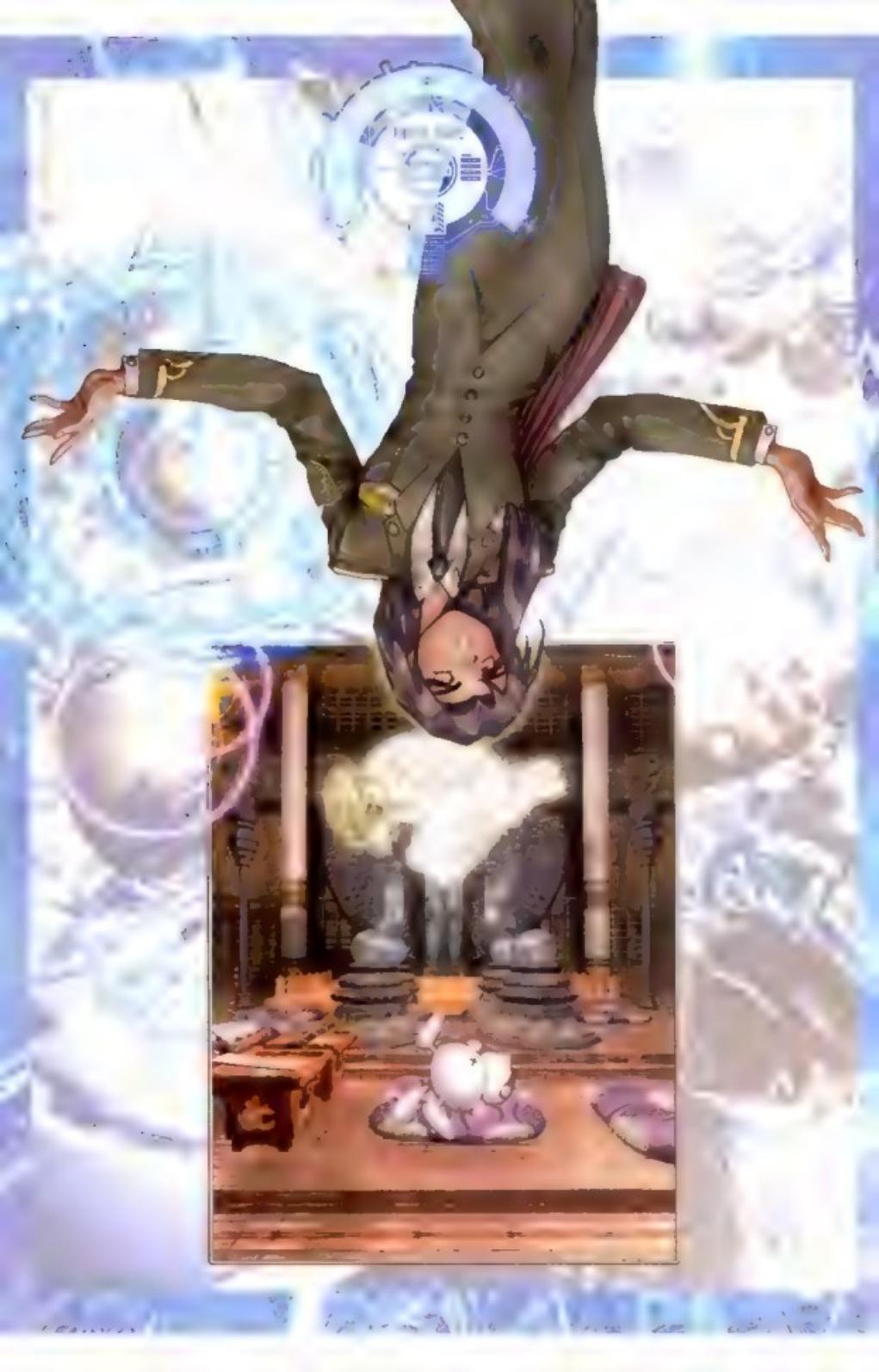
As we featured last issue, included here are alternate versions of some of Masamine Shirane's awe-inspiring illustrations for *Man-Machine Interface*.

On this page, the inset is the cover image from *MANMACHINE INTERFACE INACTIVE MODULE*, a special booklet that was included with the limited-edition Solid Box set (released by Kodansha in December 2000). Alongside the finished image is a series of sketches (and one color) used to create it.



Another costume-color treatment. See inside this issue's front cover image.





2

OPEN



WARNING: READ ME FIRST!



The second edition of *Handbook of International Business* has a wealth of new material, a focus of globalization and its consequences, has been updated throughout and 20 authors from 10 countries have contributed to this major reference work.

APOLOGIES AND CORRECTIONS

In the Chinese New Year people traditionally eat rice, "Nian Gao", sticky rice cake with a soft "jelly" texture like longan and soft fruits. It is the most popular dessert. You can also have dumplings which are the traditional rice dumpling that varies slightly different from other countries as the Chinese version has a "sticky" texture. If the dumplings have a variety of fillings it becomes delicious. However this kind of rice cake is mostly flavorless because it has no taste - either salt or sugar. I like to add some salt or "salted" or "soy" which would give it a "saltiness" or "soy smell". I sometimes like "salted" without any salty. As for a variety of flavored baked cakes do not be afraid to make something unique after your learning. I sincerely hope all you have a happy Chinese New Year!

— Masamune Shirow

Send comments to

SE Main Street
Eugene, OR 97422 USA



06 EPILOGUE
2035.03.06.05:35AM







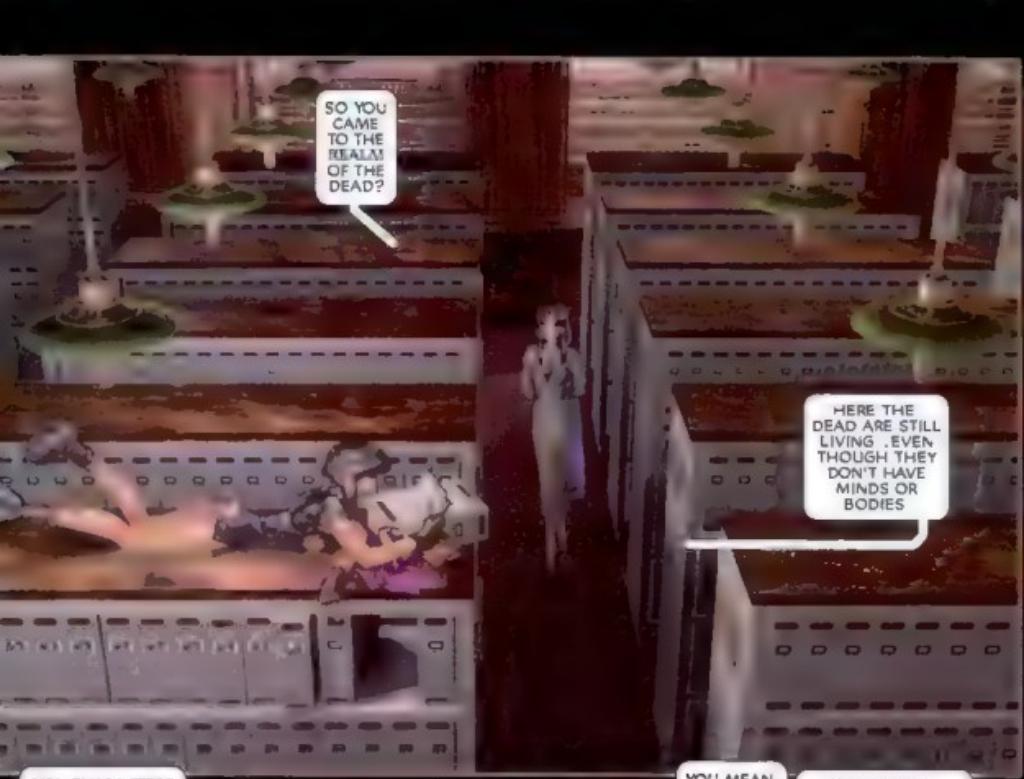
BORN IN THE FIRE OF SANSHUKU, OR SHEN, THE CHINESE EQUIVALENT OF ORION...HAS THE SWORD OF EXTINCTION IN PERSONALITY...

H/M... THERE IS ONE PERSON IN THE CHANNELING AGENCY TO WHOM THAT APPLIES...

...BUT HER REGISTERED NAME IS TANUKI TAMASUI. SOUNDS LIKE SOME SORT OF FAT AND GIFTY JAPANESE RACCOON DOG.



When a cyborg's entire body is a prosthesis, its exterior doesn't have to look the same age as that of the living brain portion inside. But there are sometimes problems when a child's brain is implanted in an adult prosthetic body, and these problems can affect personality development. As a result, most brains are given prosthetic bodies that match them well. In this story, we are assuming people either want prosthetic bodies that look the way they did when they were younger, or that they want natural-looking bodies appropriate to their true age....



SO YOU
CAME
TO THE
REALM
OF THE
DEAD?

HERE THE
DEAD ARE STILL
LIVING, EVEN
THOUGH THEY
DON'T HAVE
MINDS OR
BODIES



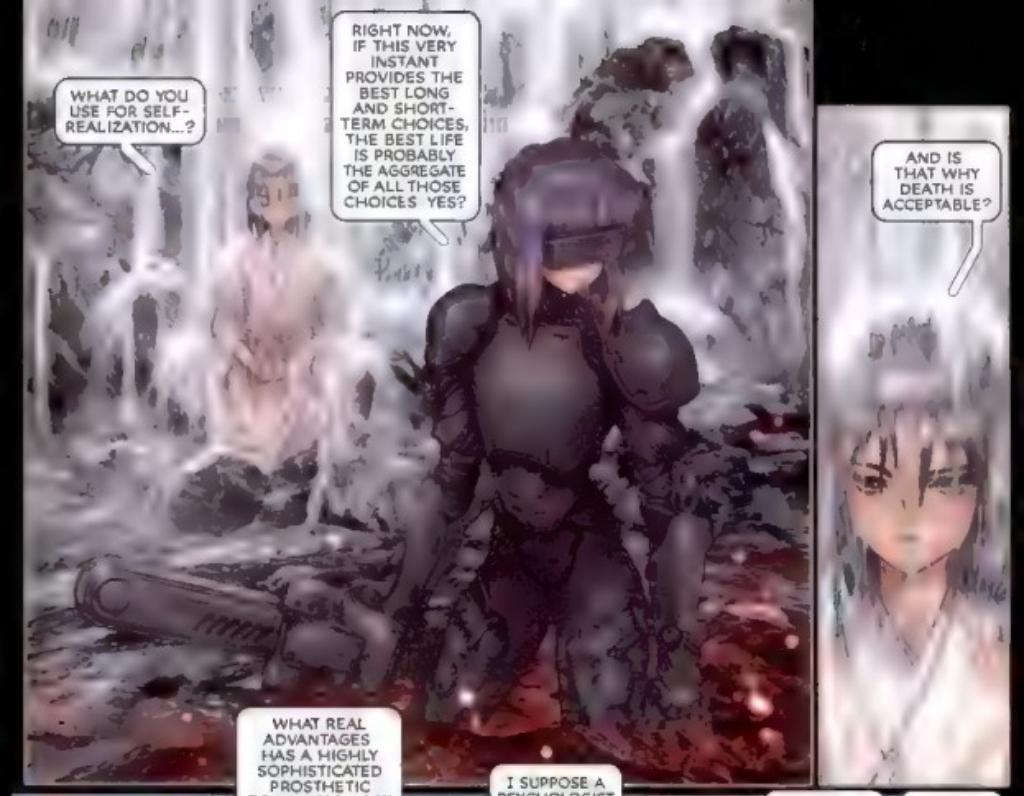
MM. CHARACTERS
AND LETTERS ARE
MIRRORS ON THE
SOUL -- BOOKS
ARE THEIR BODY
LIFE CAN BE
DEFINED IN SO
MANY DIFFERENT
WAYS...

WELL, THE CONFLICT
BETWEEN WARRIORS
AND THOSE WHO
BELIEVE IN THE
SACRED POWERS OF
LANGUAGE HAS BEEN
GOING FOR OVER
800 YEARS...THE PEN
VERSUS THE SWORD

MOTOKO...
DO YOU
HAVE
DREAMS?

YOU MEAN,
DO I HAVE
GOALS
THAT CAN
ACTUALLY
BE
ACHIEVED
WITH
EFFORT?

OR ARE YOU
ASKING IF--IN MORE
VULGAR TERMS--
I YEARN FOR SOME
IMPOSSIBLE,
FLEETING IDEAL. ?



WHAT DO YOU USE FOR SELF-REALIZATION...?

RIGHT NOW, IF THIS VERY INSTANT PROVIDES THE BEST LONG AND SHORT-TERM CHOICES, THE BEST LIFE IS PROBABLY THE AGGREGATE OF ALL THOSE CHOICES YES?



WHAT REAL ADVANTAGES HAS A HIGHLY SOPHISTICATED PROSTHETIC BODY--FAR MORE ADVANCED THAN A HUMAN BODY--GIVEN YOU?

I SUPPOSE A PSYCHOLOGIST MIGHT SAY THIS IS THE REVENGE OF THE "REAL" BODY I LOST AS A GIRL



SO WHY FUSE WITH AN INFORMATION DEITY WHO SEEKS LIFE, OLD AGE, AND DEATH ?



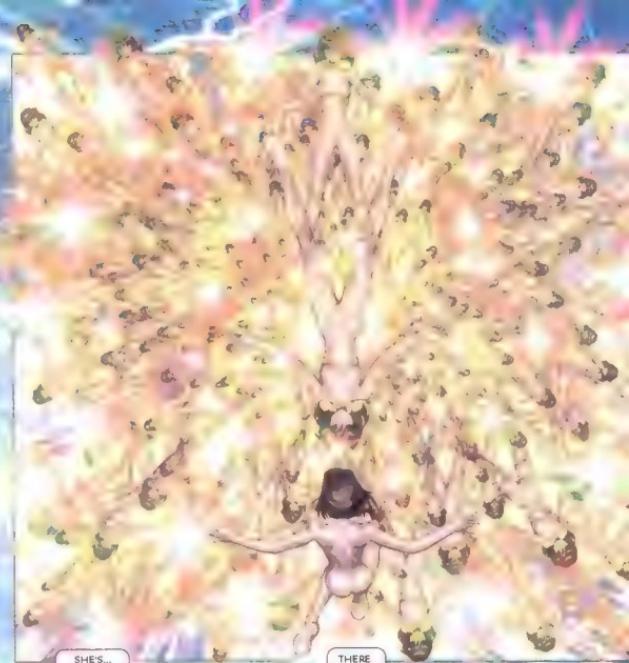
NO COMMENT

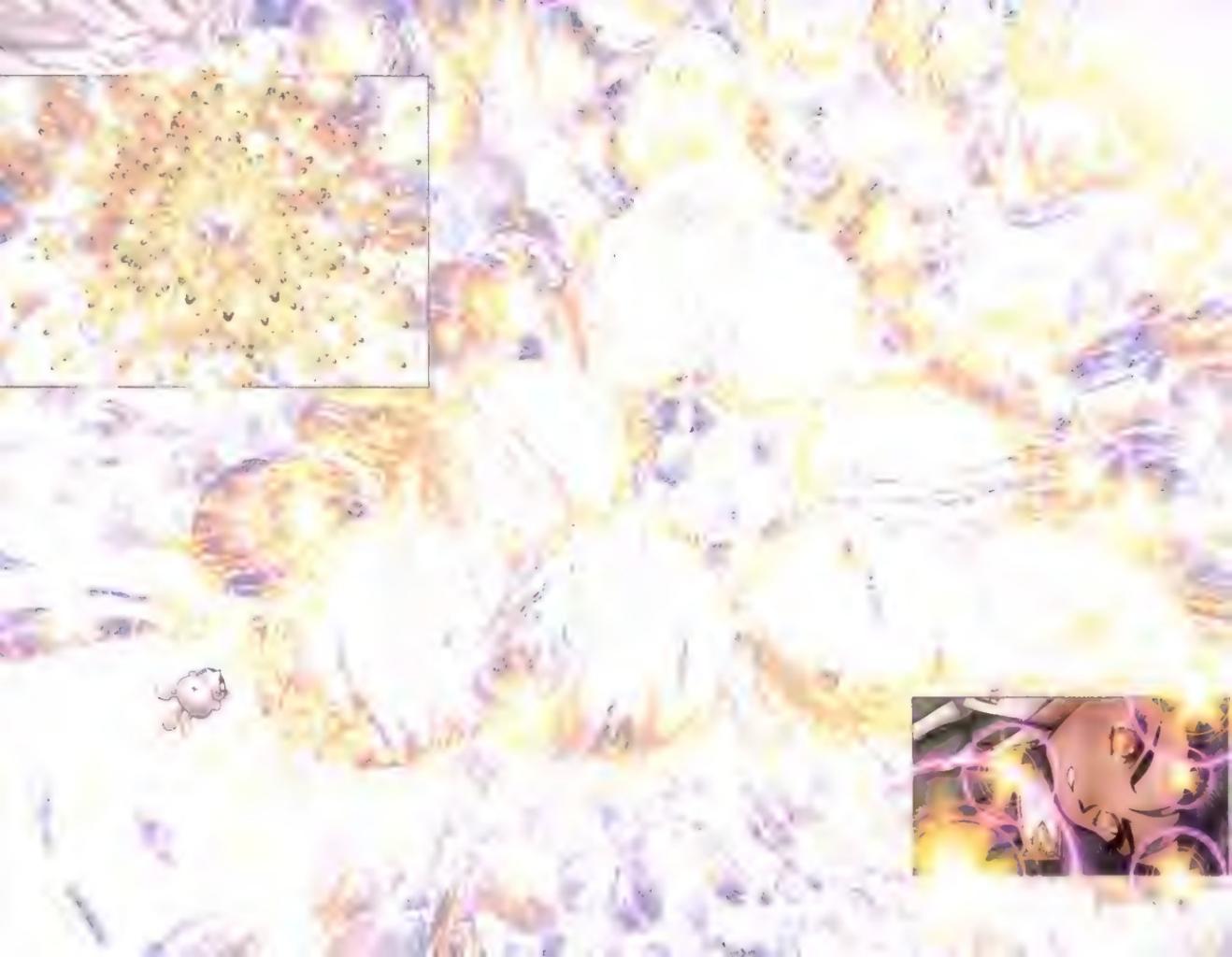


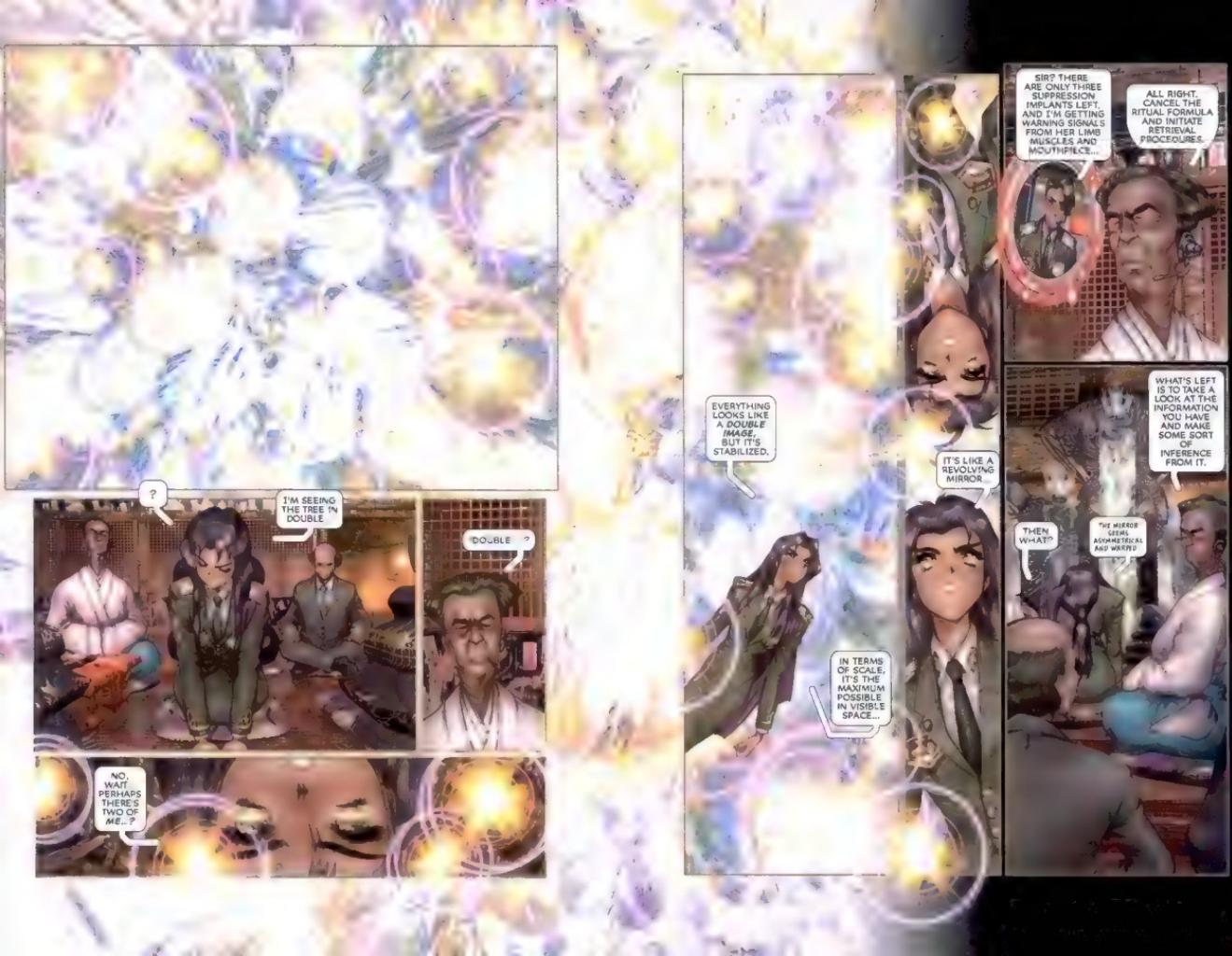












OUR BASIC INVESTIGATIONS SHOW THAT PROFESSOR RAHAMPOL HAD A STRONG INTEREST IN THE POTENTIAL OF SILICON STRUCTURES IN ARTIFICIAL INTELLIGENCE

ON THE OTHER HAND MOTOKO ARAMAKI OFFERED HER HARDWARE TO A SELF-PROFESSED ARTIFICIAL LIFE FORM, AND SHE'S BEEN EXPANDING HER INFLUENCE

THE COMMONALITY BETWEEN THESE TWO THINGS IS...A NEW TYPE OF INTELLIGENT LIFE

THREE THOUSAND YEARS AGO THERE WAS ANOTHER MIRROR MILLENNIUM. BUT TOO FEW RECORDS SURVIVE TO MAKE ANY ESTIMATES ABOUT THE EFFECT OF THE PHENOMENON. TWO THOUSAND YEARS AGO IT WAS THE JEWEL MILLENNIUM, DURING WHICH RELIGION WAS EXTREMELY POWERFUL

BUT WHEN THE SWORD MILLENNIUM BEGAN, IT WAS SYMBOLIZED BY POWERFUL SCIENCE AND TECHNOLOGY. RELIGION-- UNTIL THEN, THE JEWEL -- BECAME A DOUBLE-EDGED SWORD

SO WHAT YOU'RE SAYING IS THAT, DESPITE THE FACT THAT SCIENCE AND RELIGION MIRROR EACH OTHER, WE DON'T REALLY KNOW WHAT THE PHENOMENON OF THE MIRROR IS...RIGHT?

THE MIRROR REFLECTS THE THREE SOULS OF SELF...THE INNER DEITIES.

H.R.M.

The Three Souls...I'm not going to get into a discussion here of dualism or the "single spirit, four souls," etc., of the ancient Shinto religion. Although the story seems very "Shinto"-ish here, remember...it isn't Shinto.



BUT HOW DO YOU INTERPRET THE AMANOJAKU IN FOLKLORE?



IT REFERS TO SOMEONE ALWAYS DOING SOMETHING CONTRARY OR TO A DEMON WHO IMITATES HUMANS



THERE'S NO "CORRECT" ANSWER TO YOUR QUESTION... IT'S SOMETHING VAGUE.. SOME PEOPLE MIGHT SAY THE AMANOJAKU IS "A PERSON WHO SPEAKS THE TRUTH ON THE TREE'S SIDE" OR EVEN "AN EMISSARY OF THE DEVIL."

IN TAMAKI'S REPORT, THE INVESTIGATION WAS FOCUSED ON SOMEONE WITH NO SIGNS OF THE STRESS SYNDROME UNIQUE TO CYBORGS



NOT A NIHILISTIC PHILOSOPHER-TYPE, BUT A POSITIVE REALIST.... A PERSONALITY TRAIT THE NEW LIFE-FORM WE'RE SEEING MAY HAVE INHERITED

AND IF SO...WHAT HAPPENS?



SHE WILL SOON CONFRONT THIS



UH...I'VE GOT A FRIEND IN THE POSEIDON SECURITY DEPARTMENT... WANT ME TO HAVE HIM OBSERVE HER MOVEMENTS?



NOT NOW. WE CAN DO THAT LATER, IF NEED BE



WE CAN RESTART
THE INVESTIGATION
AS SOON AS TAMAI
RECOVERS, BUT WE'LL
PROBABLY HAVE TO
WAIT UNTIL AROUND
NOON FOR THAT
TO HAPPEN

WELL, SHE DID
SAY THAT THIS
MATTER HAD BEEN
AROUND FOR A
THOUSAND YEARS
AND WOULD
PROBABLY
CONTINUE FOR
ETERNITY .. SO..



IT'S TRUE
THAT WHAT
IS GOING TO
OCUR TODAY
IS ONLY A
BEGINNING...
A SINGLE
TRANSIT
POINT.. BUT
IT'S ALSO AN
END POINT



SINCE IT'S
HAPPENING
IN
REAL TIME,
I WANTED
YOU TO BE
PRESENT

? BUT I
THOUGHT
YOU GUYS
WERE IN THE
BUSINESS OF
VIEWING THE
FUTURE..



THE PAST
AND THE
FUTURE ARE
THE SAME
THING

THE ONLY
DIFFERENCE
IS ON THE
PART OF THE
PERCEIVER ..



MAN-MACHINE INTERFACE: THE END

2

CLOSED



INTERFACE

Send your comments to:
Interface@zeta.com.au

Interface
CD-ROM & High Score
1990 © Studio Proteus
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Yumpin' Yininy, the final issue of *Man-Machine Interface*. I'd like to thank our many loyal readers for staying on the har-wagon through thick and thin - and humpy shipping schedules - and we hope all of you enjoyed the books as much as we enjoyed bringing them to you. And although there'll be no more *Interface* columns - stop cheering, damn you! - feel free to keep dropping snails and letters of comment. As far as you know, we'll keep reading them! Also, we want to pay tribute to those who labored long and hard for little pay and even less money to bring *Man-Machine Interface* to English-speaking audiences.



TOREN SMITH: President of Studio Proteus, he who was *manga* before you were *manga*, Johnsy. Since 1987, Toren has worked on over 80,000 pages of translated *manga* comprising 71 different series, which used to be impressive, but isn't anymore ever since that much started being published every month. Working on *Shirèw* comics for 16 years has altered his brain at the molecular level and given him the secret mutant ability to understand *Ghost in the Shell*. Aside from bringing some of the *Neon* *manga* to America, Toren does the script rewrites on many translated *manga*, MMN included, which is an art in itself. Toren will go to hell, purgatory and heaven to script sing and dance, such as diving wrecks in the Cayman Islands. Don't get me wrong, that's why Toren makes the big bucks, mister!

FREDERIK L. SCHODT: Translator primus inter pares, Fred's the guy who sweats bullets to make Mr. Shirèw's very complex scripts understandable to those of us who operate several dozen levels of mental magnitude below MMN's creator. Aside from his considerable *manga* translation credits - like about three quarters of a million words of *Astro Boy* - Fred has written a bucket load of fascinating books - yes, buy them NOW - including *Manga! Manga!* The World of Japanese Comics (the definitive work on the subject) and his latest, *Between Two Worlds: American in the Land of the Shogun*.



TOM ORECHOWSKI: One of the comics industry's most renowned letterers, whose personalized approach is as instantly recognizable as that seedy bouncer down the street with the eagle claw tattooed on his face, Tom would be a millionaire today had he only been paid by the word during his decades-long stint on *X-Men*.



DAN JACKSON: Crackjack Photoshop wrangler Dan Jackson assists Tom Orazchowski with a variety of visual effects and spends the livelong day getting the incredibly complex graphics files for MMN just right. Dan's also a fine colorist as well as a PhD in Particle Physics. Okay, I made that last bit up, but he is a terrific colorist!



DAVID NESTELLE: Dark Horse is lousy with crackjack Photoshop wranglers, I tell ya. Dave's the book's principle graphic designer, responsible for the very cool 3D graphics on the "Enter" page and the like. Dave's been busting his tail on eye-slapping digitally rendered images on staff here for some time, and we're really going to miss Dave once we've sent him aside after sucking the creative life out of him.

INTERCHANGE

We wind up our final issue of *Man-Machine Interface* with some interesting bits and pieces from the vast *MMI* vaults.

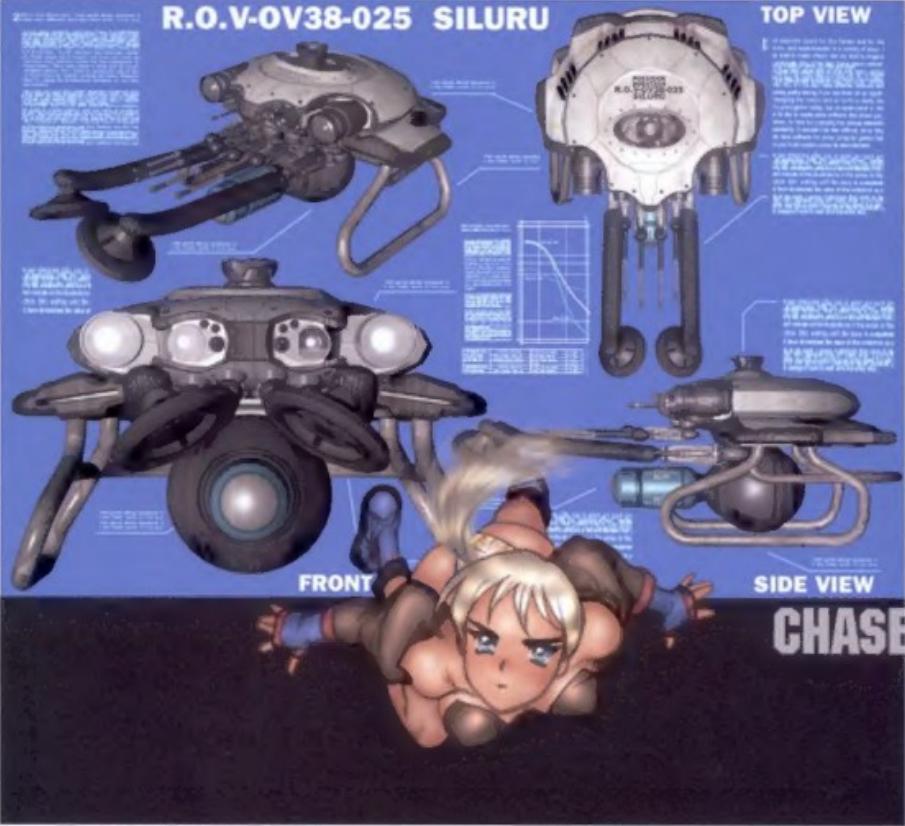
Submitted for your approval, ample evidence of exactly how much painstaking work Masamune Shirow puts into his storytelling. Here's a panel from issue two, with a series of floating screen images. Below are larger versions of those images, but you'll probably want to get out your magnifying glass to check out some of the details that now show up.



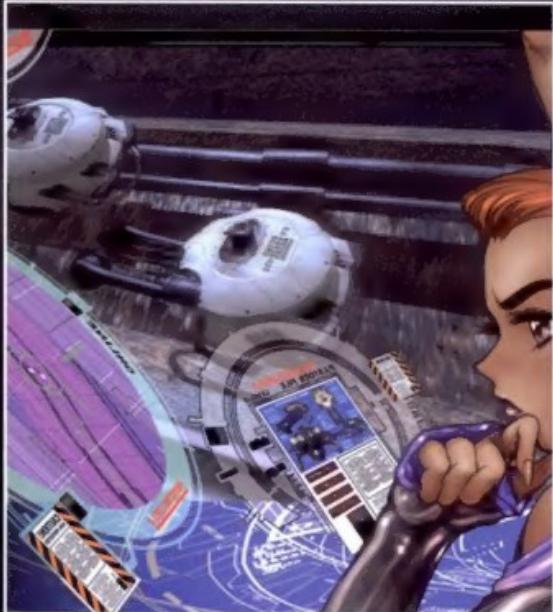
A variant view of the amazing inspection ROVs from the second issue. And the figure floating at right? That's the teeny, tiny figure swimming in the background of the panel!



R.O.V-0V38-025 SILURU



Okay, now get out your electron microscope! Here's a blown-up version of the little throwaway ROV schematic from issue 2 that was printed about the size of a tobacco tax stamp. I am told by our magical production folk that this text is actually readable when blown up from the high-resolution files. Of course, that could just be the whiskey talking...



And here, the coolest thing ever: the *Man-Machine Interface* mousepad that came with the limited-edition *Solid Box* set in Japan. I had to stop using mine, since I was having a hard time keeping my eyes on the computer screen!



HOST IN THE SHELL

MAN-MACHINE INTERFACE

2

ISSUE 11 OR 11

\$3.50 US...\$5.99 CAN

DARK HORSE COMICS



MASAMUNE SHIROW



**GHOST IN THE SHELL
MAN-MACHINE INTERFACE**

攻殻機動隊

ISSUE 11 OF 11

STORY AND ART BY

MASAMUNE SHIROW

TRANSLATION BY

FREDERIK L. SCHODT AND TOREN SMITH

この物語に登場する
様々な設定や解説や概念は全て妄想の産物で
あり、現実とは無関係
の娯楽物です。服用を
誤る事無くお楽しみ頂
ければ幸いです。

またデッчи上げやギミックの「誤用」による
二次被害には当方責任
を負いかねます点を御
了承願います。

LETTERING BY

**TOM ORZECHOWSKI
AND DAN JACKSON**

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